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OUR COVER
Attractive Alpana

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EDITORIAL

Increased agricultural production through the adoption of improved technique by the farmer is the aim of Agricultural Extension. It is, no doubt, the basic prerequisite for a higher standard of living for the rural people, but it is not an end in itself. For the maximum benefit of the farm families, every bit of the produce needs planned utilization. Higher agricultural production together with a wise use of the resources will lead to a greater well-being of the farmer and his family. Herein comes the role of Home Science Extension.

Educating the rural housewives in better ways of home management for making the village homes healthier and happier is the task of the Home Science Extension Worker. Agricultural Extension and Home Science Extension are inseparably linked together and are to play a complementary role in the development of rural India. For the planned progress of our country, if Agricultural Extension is a vital necessity, Home Science Extension is of no less importance.

Ignorance, superstition, ill-health, insanitary living conditions, unbalanced nutrition, injudicious family expenditure and the like are great impediments to any advancement towards progressive l ving. Women in the villages who principally determine the pattern of our rural living need to be enthused with newer ideas to work for a progressive future. Home Science Extension serves to bring those ideas to our village homes for an integrated development of the different aspects of living, *viz.*, food and nutrition, clothing, housing, home management, health and sanitation, child development, education, community services, human relationships, etc.

Any programme of development, unless it is based on the realities of the conditions of the people, their resources and potentialities, is not likely to achieve its purpose. Our Home Science Extension programme, therefore, has to be based on the existing conditions of our rural people and has to be formulated accordingly for improvement in their way of living within those limitations.

Quite an appreciable improvement can be brought about in the villages with a little change in the outlook and attitude of our rural women. In many of our village homes, the traditional way of cooking food is such that most of the food value in the diet is lost in the process. Our rural women need to be made aware of the importance of a balanced diet and the proper methods of preparing food. Many simple and cheap food-stuffs can be easily included in the diet. With a little planning and effort, getting a balanced diet out of the resources of the farmer is quite possible. Superstition born out of ignorance often leads to serious consequences on the health of the family. These can be avoided by inculcating in the home-makers the spirit of hygenic living. The housewife can well utilize her leisure with work that combines recreation with usefulness. Making household things of utility from waste materials, raising a kitchen garden or beautifying dwellings are the things which do not involve much extra expenses. Planting a few fruit trees and raising a few flowering plants will not only beautify the surrounding of the house but will also bring in some additional income.

A change in the attitude of the rural housewife has to come about before any change can be brought in the living conditions of the people around her. What is needed is a break from tradition. This the Home Science Worker has to achieve by enthusing the rural women for a better living by setting a personal example by practising what she preaches. As a matter of fact, the village people can be taught to live much better even within their present resources. With the gradual progress in our agricultural production followed with a consequential economic betterment, Home Science Extension is sure to play an important role in the building up of a healthier, happier and progressive rural India.

ANSWERS TO SOME OF YOUR QUESTIONS ON

WHAT CHILD DEVELOPMENT IS

--Alice McKinney

EVERYONE will agree that children form an important part of a nation's resources and that any education that helps children to develop to their highest level is to be commended. Child Development is an important phase of Home Science Education. But what exactly is meant by Child Development?

Does it mean only the physical growth and development of a child, important as that is, or does it mean the complete process of becoming a mature individual not only physically but also mentally, spiritually, emotionally and socially? Again, is the development of children to be entrusted solely to women or have men also to be vitally concerned with it ?

IMPORTANT QUESTIONS

With regard to method in child upbringing also, precise answers to some important questions must be obtained.

Are the children to do only what they are told to do, or are they to be left to work at solving their problems and grow by sharing their experiences with others? Should they 'click' to a standing position when a teacher or visitor enters the room, or should it be that unconscious of the age or status of the individual who enters or exits, the children should go on with their work (or play) uninterrupted? Should the children be allowed to behave as they please, or should they be made aware to respect the rights of others? And lastly, should all children be taught to act alike, or each given a chance to be himself and grow in his own way?

To arrive at a clear percept of Child Development, it is necessary to understand exactly what is meant by growth and maturity.

Is growth and development of personality confined to the period of childhood only,

or does it continue later on also and cover the entire life of man? Do people stop developing when they reach physical maturity and do they ever become completely mature intellectually, emotionally and socially? What do we mean by maturity and what are the milestones of maturity?

Again, what is the role of teachers, parents or other adults in the development of children? Are older people always right to act as they wish, or should they sometimes sacrifice their own ideas and habits in the best interests of the development of the child? Must parents and others always exercise personal discipline in the interest of being good examples and guides for their children? Should older people always show interest in the plans and activities of children even though it be personally inconvenient for them to do so? How can an older person help when a child does not follow normal behaviour? How important is the love and understanding of an older person to a child, and how can growing young people be helped to develop strong healthy personality?

Child Development or human development in general, must take into account all these questions.

BASIC NEEDS

Every person, young or old, has certain basic needs: physical, intellectual, emotional and social. Abnormalities in behaviour result when these needs are not met. The parents, the teacher or any other adult must be able to locate the causes of these abnormalities when they arise in children, and help the child grow out of the situation without developing any undesirable traits.

For this, the adult must think through the way people of varying ages behave when their basic needs are not fulfilled, and see what a small child, a school child or a teen-ager does when he feels left out of happenings. The adult can thus find out the proper solutions and prevent the development of undesirable attitudes and actions in children and help them learn to fit into an adult world.

THINGS CHILDREN REMEMBER

All boys and girls remember certain things about the period of their growing up. The events they remember may seem of little importance to an adult, but these little things make big impressions upon children's minds. Things adults do and say shape the thinking and attitudes of children.

They remember the good examples set for them to follow, such as respect for the rights and property of others. They remember having received encouragement and praise when they deserved it. They remember the advice given to them to spend wisely any money they had received or earned. They remember a chance given to them to explain when they made mistakes, or perhaps even an older person admitting having made mistakes too. They remember being justly punished in that they knew the connection between what they had done and what happened as a result. They remember having had fun doing things together such as a picnic, a walk in the woods, or a birthday celebration, or even the making or mending of some plaything.

Now, what are the things the children you know will remember about their growing up?

MEASURING GROWTH

Physical growth can be measured in terms of height, weight and certain physical achievements.

Intellectual growth is evidenced in the kind of curiosity expressed, in taking over greater responsibilities as well as in the ability to read, write and do number work. Milestones for later intellectual development would be ability to discuss and solve problems and see the different sides of a question, ability to postpone satisfactions, and ability to plan ahead.

Emotional development manifests in the way love and affection are expressed and the way anger, fear and jealousy are controlled. Children who have been given a sense of security and a sense of worth

and self-respect have a good chance to develop a healthy personality.

Social development comes through learning to be thoughtful of others and to accept differences, and thus develop the ability to cope independently with life's situations.

Charts showing physical development month by month and year by year and the food requirements corresponding to this physical development, can be obtained. Charts are needed to show the kind of toys, games, play, and sports equipment that will help a child develop from a baby into a 'big boy' or a 'big girl'. Charts can also be developed to show the social and intellectual growth for boys and girls of different ages.

PLAY AND CHILD DEVELOPMENT

Playtime is learning time for children. Through play, a child learns to control his body, develops emotional control, and learns of the world about him and how to get along with others. Play equipment should provide materials for muscular development, for creative self-expression and for imaginative and dramatic play. Opportunity must be provided for individual play, and play in groups.

EVERYDAY LIVING

Everyday activities can also provide opportunities for a child to learn to help himself. When a child dresses, fastenings should be big enough and easy enough for him to do them himself. Time should be allowed at first for the practising of these difficult jobs for his little fingers. When a child eats, utensils should fit his hand, and if the child can help prepare new foods, more interest may be shown in them. When a child washes his hands and face, steps or a stool to raise him high enough to reach the wash basin easily will enable him to help himself without accidents. The provision of low rods, a low mirror and a comb within easy reach will stress the importance of this phase of development.

A child needs a safe place to play as well as toys and equipment suited to his age. A child should have playthings both for indoor and for outdoor play, some with many uses, some that can be made at home with his own skill and labour, as well as some quiet games and stories. To take care of his own belongings, he needs to have low hooks, drawers, boxes and shelves.

CHILD BEHAVIOUR

Orderliness, neatness, politeness, consideration and other things an adult takes for good behaviour, may be contrary to a child's nature until he has learnt to live with others.

Good behaviour does not mean the same thing for all people. It is well to remember that all behaviour is caused by feelings, and feelings are caused by events that happen to us and around us. Parents and other adults may well worry about certain kinds of behaviour such as uncooperativeness, selfishness, fear, or 'showing off', but they need to study the causes of such behaviour in the child and then decide what can be done about it. Some abnormal behaviour is a normal part of growing up. But if adults give approval to a desirable behaviour, the child is helped to learn self-control. As a rule, happy children behave well.

ADULTS MUST GROW TOO

To help children in order to grow up, to help them find themselves and achieve success, adults must keep growing themselves too. Understanding children is a good foundation for understanding ourselves.

Good nursery schools are laboratories for human development. Methods used there to allow children to develop naturally with a minimum of guidance also apply to people belonging to any age-group and any environment.

Child Development is an important phase of education. The way people develop and behave determines the future of a nation.

Taking Nutrition Knowledge to Rural Kitchens

EVERY HOME-MAKER A NUTRITIONIST

—Rajammal P. Devadas

ALTHOUGH much is known now about better nutrition, there are only few people who really know, and fewer still who apply in practical life what they know. Here is a challenge for Extension workers and educators. How can we make this knowledge important and real to everybody and put it to action in the kitchens of the several million homes in India? Nutrition is important in the health and welfare of the people and the responsibility for applying the knowledge of nutrition rests with the home-makers, who in everyday life are the real nutritionists of the country.

All living things from the tiniest single cell to a highly developed organism like man, need food. While animals require food for their physiological function only man's emotional and physical needs are met by food.

Early childhood experiences with food determine the eating habits of the adults. A child is helpless to select food for himself. He eats what is offered. The way he feels when food is given to him influences his taste and his likes and dislikes for food. As he grows up, his feelings about food are constantly changed by experiences. The family's pattern of food selection, long-established habits, parent's likes and dislikes, sociability, hospitality, and food practices in festivals, etc., all affect his likes and dislikes.

WE ARE WHAT WE EAT

Food is the most urgent daily need of our lives. It is the single, most important influence on our health. What we are and what happens to us in life depends upon what we inherit from our parents and the environment in which we live. Food is a very important part of our environment. We receive our first food from the blood stream of our mother. Later, our own blood circulates through all parts of the body and distributes food elements derived from what we eat.

Food affects our rate of growth, size, figure and appearance directly. Indirectly, food affects our attitudes and ability for achieving happiness. It helps us to face our daily problems with strength and confidence, or its deficit makes us irritable, weak and readily subject to disease. The materials contained in our skin, muscles, hair, teeth, nerves and bones are derived from food.

Man needs food for the supply of energy to the body, for its growth and repair, and for its protection against diseases.

THE NUTRIENTS WE NEED

The food constituents necessary for nourishment are carbohydrates, fats, proteins, minerals, vitamins, roughage and water. Most of the foods we eat are a combination of these. *Atta* for instance, has a high carbohydrate content, but it also contains proteins, vitamins and minerals.

Groundnut is rich in proteins, but it also provides large quantities of fat and some vitamins and minerals. Whole milk contains some of each of the constituents.

Carbohydrates and fats yield energy. Proteins are required for building body tissues, for growth in infants and children, and for replacement or repair of tissues in adults. Certain foods are termed "Protective Foods", because of their high content of vitamins and minerals. Fresh vegetables, leafy vegetables, fruit, milk, eggs, meat and fish are included in this group.

The functions of the nutrients are interdependent in the body. To make use of certain vitamins in the body, protein is needed. To absorb calcium and phosphorus, vitamin D is essential. Carbohydrates promote utilization of other nutrients. Certain amount of roughage is required for the proper functioning of the intestines. Water has many important functions in the body, and is even more essential to life than food. It is necessary for the digestion and absorption of food, for the normal elimination of body wastes, regulating the body temperature through the cooling action of perspiration, as a part of body tissues and fluids, and as a carrier of nutrients to body cells. Many of the foods we eat have a high percentage of water.

DIFFERENT TYPES OF FOOD

A variety of food-stuffs should be included in our daily diet to supply the energy-giving, body-building and protective foods. Food-stuffs are classified as follows :

1. *Cereals:* Cereals form the staple food in the diet. They include rice, wheat, *bajra*, *jowar*, *ragi*, etc. *Ragi* is particularly rich in calcium and iron.

2. *Pulses, nuts and oilseeds:* Pulses include both whole grains and split grains or *dhal*. Bengal gram (*chana*), blackgram (*urd*), greengram (*mung*), lentil (*masur*), peas, redgram (*arhar*), soya-bean, and field bean are some of the pulses commonly used.

Pulses are a rich source of proteins and vitamin B complex. Sprouted grams are a good source of vitamin C. Oilseeds and nuts are rich sources of fats and proteins.

3. *Fresh vegetables:* These include both leafy and non-leafy vegetables. They are an excellent source of vitamins and minerals, particularly the green leafy vegetables like cabbage, *methi*, *palak*, coriander leaves, amaranth, *agathi* and drumstick leaves.

4. *Roots and tubers:* This group of vegetables is rich in carbohydrates. It includes potatoes, sweet potatoes, carrots, yams, beets, radishes, etc. Some of these are also rich in vitamin C.

5. *Fruits :* Fresh fruits are a good source of vitamin C, specially tomatoes and citrus fruits like limes, oranges and sweet limes. *Aonla* is richest in vitamin C. Dry fruits, on the other hand, are rich in carbohydrates and minerals, mainly iron.

6. *Fats and sugars :* This group includes different cooking oils and sweetening agents such as sugar, *gur* and honey. All of them are a concentrated source of energy.

7. *Milk and milk products:* Milk is the most complete natural food. It is particularly valuable for its protein, vitamin and mineral content. For the vegetarians, milk and milk products are the only sources of animal protein.

8. *Eggs, fish, meat, mutton and chicken :* These foods, classified as non-vegetarian, are a good source of animal protein and vitamin B complex. Non-vegetarians, therefore, consume less of milk and pulses.

9. *Spices and condiments:* Spices and condiments make the diet varied and palatable. However, they should not be used excessively. The commonly used spices are chillies, garlic, onions, coriander seeds, mustard seeds, *jeera*, cardamom, cloves and asafoetida.

The functions and sources of essential nutrients and the results of their deficiencies and their daily requirements are given below :

TABLE 1—*Different Nutrients, their Functions and Sources*

Nutrient	Functions	Sources	Results of deficiency	Daily requirements per adult
1. Carbohydrates	Supply energy for all body processes including growth and activity. Needed for proper metabolism of other food-stuffs, specially proteins. Supply the body with adequate fat to regulate the body heat, to protect the body against injuries, and to hold the internal organs in place. Make the food agreeable in consistency and flavour.	Wheat, maize, rice, oats, *jowar*, *bajra*, *ragi*, sago, tapioca, dry peas, beans legumes, potatoes, sweet potatoes, sugar, honey, syrup, jaggery, jams, jellies, sweets, candies.	Underweight, fatigue, restlessness, burning protein for energy, leaving too little reserves for growth and repair.	400–420 gms
2. Fats	Needed for growth and replacement of certain tissues, supply energy, essential for the absorption of vitamins A, D and E, give flavour to the food and are satisfying.	Milk, cream, butter, *ghee*, cheese, vegetable oils, margarine, egg yolk, groundnut butter and fat portions of meat and nuts like cashewnuts, groundnuts and almonds.	Underweight, burning protein for energy, fatigue, restlessness, vitamin deficiencies.	50-60 gms
3. Proteins	Needed for building and repairing of body tissues, resistance to infection, recovery from injury, wound healing, recovery from certain organic diseases, production of enzymes and hormones, utilization of certain vitamins and minerals.	Milk and milk products other than butter, meat, eggs, fish, poultry, groundnuts, dried peas, beans and other legumes, wheat, nuts, groundnut butter, etc.	Mental and physical fatigue, muscular weakness, retarded growth, complications in pregnancy, nutritional anaemia, delayed wound healing.	65–70 gms
4. Calcium	Gives strength and firmness to bones, forms healthy teeth, needed for clotting of blood, efficient digestion and assimilation of food and contraction and relaxation of muscles.	Milk and milk products other than butter, green leafy vegetables and *ragi*.	Bone deformities in growing children, stunted growth, poor digestion and utilization of food, poor muscular control, osteo malacia in adult women.	0·6 to 1 gms
5. Iron	Essential for building blood and tissue cells, gives red colour to blood due to the haemoglobin.	Liver, heart, kidney, egg yolk, green leafy and other vegetables, dried fruits, *ragi* and *gur*.	Nutritional anaemia, poor appetite, increased susceptibility to infection, retarded growth in children	15 to 30 mgs
6. Iodine	Essential for the proper functioning of thyroid glands.	Sea foods, sea weeds, iodised salts.	Simple goitre in adults, dwarfism, cretinism in children, hypothyroidom.	Trace
7. Vitamin A	Essential for the proper functioning of the eye and adaptation to darkness, skin and the health of the mucous membranes, lining of the respiratory, alimentary and urinal tracts, growth and resistance to infection.	Green leafy vegetables, yellow fruits, yellow vegetables, liver, whole milk, butter, cream, eggyolk, cod-liver oil, shark liver oil and other fish-oils.	Night blindness, glare blindness, lowered resistance to infection, rough skin, dry skin, retarded growth.	3,000 to 4,000 International Units (I.U.)
8. Vitamin D	Needed for the utilization of calcium and phosphorus to build and maintain bones and teeth.	Fish liver oils, direct sun light, food exposed to ultra violet rays, irradicated foods.	Rickets, poor teeth, soft bones, pigeon chest, protruding forehead, fat belly, bow legs.	400 I.U.
9. Thiamine (Vitamin B1) ..	Needed for a normal appetite, proper functioning of intestines and other internal organs and for the body's ability to utilize carbohydrates for energy.	Whole grain cereals, bran, groundnuts, pulses, and liver.	Poor appetite, constipation, faulty digestion, faulty assimilation of food, fatigue, depression, irritablity, listlessness, in severe cases beriberi.	1—2 mgs
10. Riboflavin (Vitamin B 2)	Essential for utilizing carbohydrates and amino acids in the body, maintaining the health of mucous membranes, skin, nerve tissues, and eyes.	Green leafy vegetables, milk and milk products, liver, meat, eggs and whole grains.	Pale lips, splitting at the corners of the lips, angular stomatitis, eye-strain and fatigue, itching and burning of the eyes, sensitivity to light, headaches, red and rough tongue, vascularization of the cornea.	2·2 to 3·3
11. Vitamin C	Essential for the formation and maintenance of the active tissues in bones, teeth and blood vessels, health of the gums and teeth, growth and resistance to infection.	Oranges, lemons, limes, tomatoes, raw vegetables, green leafy vegetables, sprouted grams.	Weakened capillary walls resulting in easy haemorrhage, weakness of bones, teeth and gums, anaemia, slow healing of wounds, in severe cases scurvy	50—70 mgs

HOW MUCH TO EAT

How much food is required by the human body is measured in terms of calories which the food-stuffs supply. Theenergy or calorie requirement varies according to age, sex and activities of an individual. Children require less calories than adults and adult women require less calories than adult men for the same age and activity. Lactating mothers and pregnant women require more calories. A worker who sits in the office requires less calories than a manual labourer. The daily requirements of calories and some essential nutrients are given below :

TABLE II

*Daily Nutritional Requirements**

	Net calories	Proteins gms	Calcium gms	Free Iron mgs	Vitamin A I.U.	Thiamine Vitamin B1 mgs	Ascorbic Acid Vitamin C mgs	Vitamin D I.U.
Men (Weighing 55 kgs or 120 lb)								
Light and sedentary work	2,400	82						
Moderate work	3,000	82						
Very hard work	3,600	82						
Women (Weighing 45 kgs or 100 lb) ..			1·0					
Light or sedentary work	2,100	67						
Moderate Work	2,500	67		20 to 30	3,000 ot 4,000	1·0 to 2·0	50	
Very hard work	3,000	67						
Pregnancy	2,400	101	1·5					
Lactation	2,700	112	2·0					400 to 800
Children								
Under 1 year	100/kg	3·5/kg						
1 to 3 years	900	3·5/kg						400 to 800
3 to 5 years	1,200	3·5/kg						
5 to 7 years..	1,400	3·0/kg						
7 to 9 years..	1,700	2·5/kg	1·0 to 1·5	10 to 30	3,000 to 4,000	0·5 to 1·0	30 to 50 and over	
9 to 12 years..	2,000	2·5/kg						
Adolescents ..								
12 to 15 years	2,400	2·5/kg						
15 to 21 years	2,400	2·0/kg						

*Health Bulletin No. 23—Government of India, 1956.

N.B.—*The estimates of protein requirements of children and adolescents are given in terms of grammes per kilogramme of body weight.*

The calorific value of some food-stuffs is given below :

TABLE III

Food groups	Calories per ounce
Vegetable oils	252
Ghee	232
Butter	209
Oilseeds and nuts	168
Sugar and jaggery	110
Cereals	98
Pulses	96
Dry fruits	82
Eggs	49
Meat	40
Milk (buffalo's)	25
Fish	24
Roots and tubers	23
Cows' milk—fresh or reconstituted from white milk-powder.	18
Skim milk (reconstituted)	10
Fresh vegetables and fruits	10

PLANNING DIETS

Since the nutrients needed for good nutrition occur in different combinations in a variety of foods, a varied diet is the best way to get them all. From the basic groups of foods already described, balanced diets can be planned by including foods from all the groups. A balanced diet is called "balanced" because it supplies all the necessary nutrients in the required quantities and proportions to satisfy the physiological needs of the human body. While planning daily menus for families using the suggested allowance in Table II as a guide, the following considerations should be kept in mind.

1. *Family members*: Age of the family members must be considered, because appetites, tastes and food tolerances of children and elderly people differ. A single meal may be planned to meet the nutritional needs of the entire family except when an individual requires a special diet.

2. *Activities of family members*: Persons engaged in hard, physical labour, use more food energy than those who work at an office desk. Mothers employed outside the home and those who do heavy work in the house while caring for the young ones, also need extra food. Employed mothers have an additional problem of planning meals which can be prepared in a short time.

3. *Family income*: The lower the budget, the more carefully the home-maker must plan meals. Appetising and nourishing foods can be served even at a less cost. Many foods high in nutritive value, are relatively low in cost during season and are sometimes available free.

4. *Family customs*: Since variety keeps the appetite keen, delights the family and usually results in improved food habits, meals should include new and different dishes frequently.

5. *Season and locality*: Foods which are "in season" and are produced locally, are available in plenty and are less expensive.

6. *Special diets for special conditions:* During infancy, adolescence, illness, old age, pregnancy and lactation , special diets are called for. Modifications should be made in the balanced diet to meet the needs of such special conditions.

A balanced diet for an adult is given below :

TABLE IV

Suggested Daily Allowances for an Adult

Food-stuffs	Vegetarian ozs	Non-vegetarian ozs
Cereals	14	14
Pulses	3	3
Green leafy vegetables	4	4
Roots and tubers	3	3
Green non-leafy vegetables	3	3
Fruits	3	3
Sugar and *gur*	2	2
Vegetable oils and *ghee*	2	1
Milk	10	10
Meat and fish	—	3
Eggs	—	1
Groundnuts	1	—

PREPARATION OF FOOD

Planning a well-balanced diet is only the first step in providing nutritious meals to the family. Many important vitamins and minerals escape or get destroyed if proper care is not taken while cooking. In order to derive the maximum nutritive value from food the following suggestions may be of help.

1. Food must be prepared carefully for cooking. Since most of the vitamin and mineral-rich parts of fruits and vegetables lie just beneath the skin, it is desirable to cook them along with the skin or peel them thinly.

2. Vegetables should always be used fresh, since stale vegetables have less of vitamin C and moisture.

3. Vegetables should be cut just prior to cooking or serving and they should be cut in as big pieces as possible to minimise the surface exposed to air and boiling water.

4. Accurate measurements and standard-iszed recipes help in getting good results and avoiding waste.

5. Refined foods such as *maida*, white sugar, *suji* may be avoided, since they have already lost many nutrients in the process of refinement.

6. Minerals, vitamins and colours are lost by soaking the food-stuffs in water for long. Very little water should be used for soaking, and the soaking time should be the minimum.

7. Cooking in too much water and for too long also leads to loss of nutrients.

8. Vegetables look better, taste better and have more food values, if they are added to boiling water and cooked for the shortest time—for about ten minutes. Vegetables should be cooked last, just before they are served.

9. Raw foods like tomatoes, cucumbers, and carrots, should be served regularly.

10. Addition of cooking soda should be avoided since it knocks out vitamins B1 and C.

11. Meat, eggs and other protein foods must be cooked at low temperatures, as proteins get hardened at high temperatures.

12. Foods must be served as soon as they are cooked.

13. Dry foods such as *dhal* and dry beans should be soaked for a few hours in water before cooking, and the water in which they are soaked should be used for cooking.

14. The water in which vegetables are boiled is usually thrown away. Since it contains valuable minerals it should be used in cooking *dhal*, soup, etc.

15. Canned (tinned) and packaged foods should be opened only just before use. The remaining contents should be kept in a tightly closed container. Preferably all the contents of the can should be consumed immediately. Preserved foods like jams and pickles must be kept in cool places.

16. No air should be allowed to get into the cooked foods while stirring, sieving or straining as air destroys vitamin C.

17. Vegetables once cooked, should not be reheated. Therefore, left over vegetables must be served in forms which need no re-heating.

18. All utensils used in the preparation of food should be kept thoroughly clean.

SERVING FOOD

To win immediate acceptance, food must both look good and taste good. Variety in shapes and textures as well as kinds of food is important. Sweet and sour, crisp and soft foods add interest to meals. Hot foods must be served really hot and cold foods cold. Some foods must be served raw. Pleasing colours and colour combinations make the meal attractive. There should be contrast in flavour and texture. The appearance of the dining place and surroundings are as important as food. A spotless kitchen, a clean *thali* set with colourful pottery or brass-ware, a small vase of flowers make every bit of the food inviting without adding to the expense. Cleanliness and tidiness are

important in serving food. The atmosphere of the dining place must be cheerful and meal time should be a happy time for the family. The members must come to the dining place in a relaxed state and eat food in a congenial set-up.

STORING FOOD

Proper storing of food is important and saves much money. Moist foods should be kept moist, dried foods, dry. Devices like Janata refrigerators are helpful in keeping vegetables fresh.

BUILDING GOOD EATING HABITS

As already pointed out, eating habits are established in childhood. If parents are tired or nervous at meal time, children quickly catch the same mood. Enjoyment of eating is greater if it follows a short period of relaxation. Children are specially subject to stimulation which may retard appetite and delay digestion. They should never be fed when in a state of excitement, that is while at games or play. Children's attitudes towards food are influenced by the examples set before them by their parents and adults. Therefore, parents should not allow their likes and dislikes become those of their children. New foods should be offered when children and the rest of the family are hungry and in good spirits. If the food is rejected, it must be offered in a new way at another time. Children must be encouraged to serve themselves and make selection. They should be given small-sized servings of food.

NUTRITION EDUCATION AND EXTENSION

With a basic knowledge of nutrition, the Extension worker should be able to meet the requirements of the village homes in this respect. She must first survey the food habits and the role of food in home and community life. The basic food patterns must be studied, and the amount of foods used, money spent and time involved in cooking , methods of cooking should be elicited. The food intakes should then be studied to find out the basic deficiencies and adequacies. Side by side an intensive study of the locally available foods, foods produced in kitchen gardens, foods which grow wild and are not used, should be made.

Food habits are the most difficult to change. Therefore, in attempting to improve the dietary habits of people, the Extension worker should try to introduce the change gradually and steadily. It is enough if one change is made at a time. To effect that change, one has to concretely demonstrate the effects or results of such change towards better health. In suggesting changes, it should be borne in mind that they are within the economic level of the people and do not involve additional cost. Once the people are convinced about the improvements effected, they will take to activities such as kitchen gardening, poultry, dairy, etc., which will not only improve their diets but also give them some additional income.

One of the most effective tools for nutrition education is children. In Balwadis and youth groups, it will be easy to introduce small changes in food practices. Children will then carry them to their homes and insist upon such changes.

We should also remember that there are many good points in the existing food practices in the different regions. For instance, during weaning time, some communities give solid food to children, which have been found to confirm to accepted standards. Some of the methods of food preservation used in villages are excellent. Some modifications in the diet used as a treatment in some maladies have also proved practical. Such practices should be carefully studied and promoted as a part of nutrition work.

agriculture being a family enterprise

Let Home Science Help In Increasing Farm Production

—Ellen Moline

IN a small village, Sirsa, a demonstration was organized to show how thinning of crops gives larger yields. The importance of the operation was explained to a group of farmers and thinning was undertaken in a plot. An old woman, standing nearby, had not heard the explanation. When she saw the men pulling out the plants and throwing them away, she ran in, screaming shrilly, "These men have gone crazy." One of her sons stopped her. Later, at harvest time, when the demonstration plot was again visited, the increase in production due to thinning was discussed. In the crowd was the same old woman. She said when she was chided, "I didn't *understand.*"

To make village women understand is an essential part of the programme of increasing agricultural production, and home science trained Gram Sevikas are helping village housewives learn the improved techniques of cultivation.

Agriculture is a family enterprise in which men, women and children join hands to cultivate the land. Women may not prepare the soil for sowing or purchase the seed, but usually they assume responsibility for all the other operations. Women also care for the poultry. Most often, women milk the animals, feed them, clean the byres and take care of the milk. Children are responsible for the grazing of the animals while men look after the breeding of better stock. Kitchen gardens are the sole responsibility of the housewives.

However, much too often women are not included in demonstrations, discussions and meetings, where agricultural production is discussed. Home science has an important role to play in such situations. Gram Sevikas can insist on organizing joint meetings in which women can participate and can also receive the information.

Village women can be taught by individual contacts, but this is a very slow process. Mass methods are much more useful. At large gatherings, some kind of a partition like *durries* flung over upright *charpais* or a bamboo fence can be used to divide the group into men and women. On tours, a separate bus for women with a female guide can follow that of men. At *melas*, certain hours can be reserved for women to view the exhibits.

Women do want to learn. One can easily find this out after working in villages. Men may sit talking in the court-yard, but somewhere in the background, usually behind the open door, the woman of the house will be listening. She must also know so that she can understand and discuss the new idea with other women of the village at the well and can accept the changes.

During their training in the Home Science Wings, Gram Sevikas have learnt the cultivation of local crops, both in theory and in practice. They know all about how to choose good seeds, their treatment before sowing, proper methods of sowing seed and transplanting seedlings, weeding, interculturing and harvesting. They know how to store the grain properly to prevent destruction by insects and rats. They also have learnt how to prepare compost. They teach all these improved methods of cultivation to village women. When the Gram Sevikas see that village housewives have not provided a way to save the animal urine for composting they ask them "Do you have money to throw away?" The value of compost is impressed on them by pointing out the increased crop production in the plots where it has been used. Village women are taught to fill the compost pits properly.

A full belly does not necessarily mean a well-nourished body. The inclusion of green leafy vegetables, carrots, potatoes and other root crops in the daily diet is very important. These fill the belly and also provide more nourishment and lessen the demand for cereals. Kitchen gardens can make these vegetables easily available to the village families. Home science trained Gram Sevikas teach the importance of balanced diet to village women, and show them how to raise a kitchen garden properly.

At the same time they demonstrate the correct method of cooking foods so as to fully utilize their nutritional value.

Recently, I drove by a field in which some women were harvesting cauliflower for the market. Before each head was placed in the cart, all the lower green leaves were being cut away and thrown at the side of the road. The most valuable part of the plant was thus being thrown away for the consumption of the goats. In the same village, women and children were complaining of sore eyes. When I explained to them that they were throwing away the best part of the plant and that it was better to throw the head away, they were amazed. They laughed at the thought of how crazy their husbands would think of them if they threw away the heads and kept only the green leaves. Yet they were eager to learn how to cook the green leaves. Teaching village women the proper use of what is now available is the work of home science trained persons.

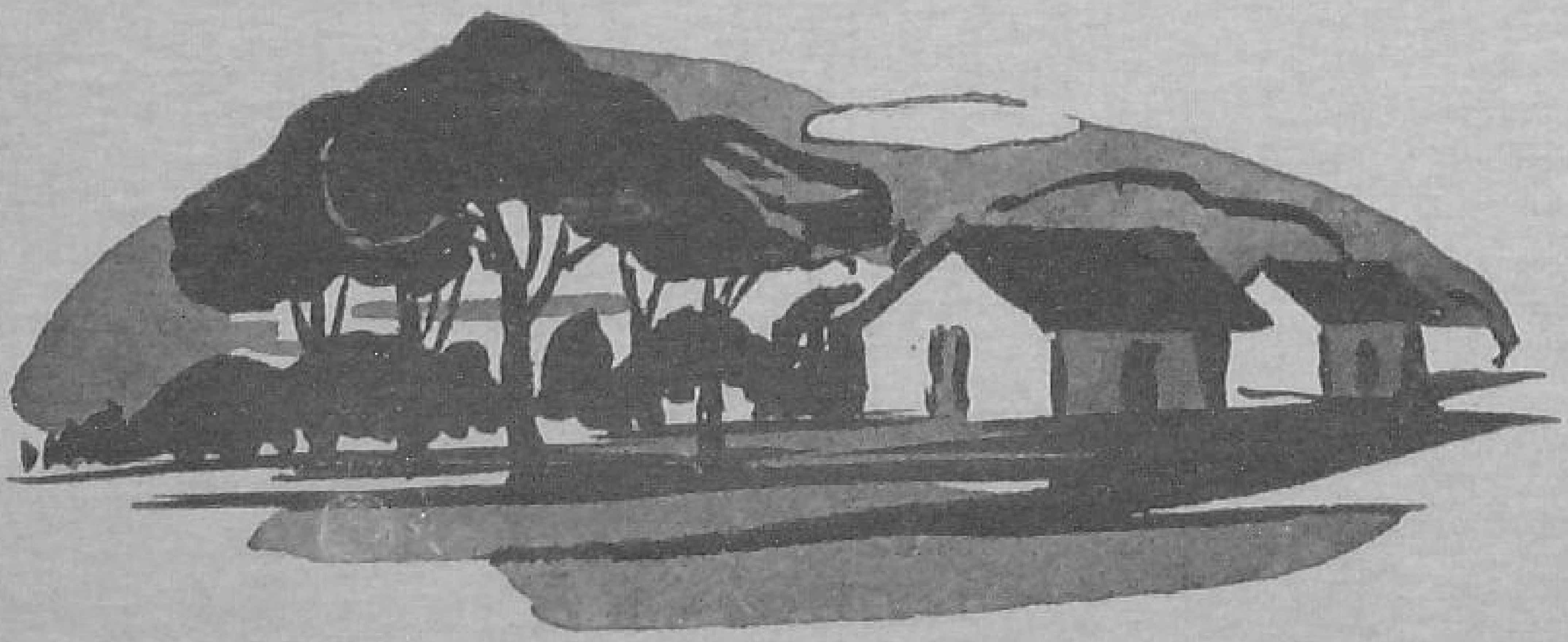
Every family court-yard should have one fruit tree, of any kind, in it. Wild fruits also can form a useful part of the diets of all families. Gram Sevikas know how to preserve fruits which cannot be consumed immediately such as mangoes at the height of the bearing season. They teach these simple methods of preserving foods to village women.

Gram Sevikas emphasize on village women the need of taking better care of milch animals. They persuade village women to use their influence to provide a means of confining useless animals so that they do not destroy crops. They impress on them that one good animal which can produce as much as two poor ones, eats less than the two and, therefore, is a saving.

Keeping poultry has been an incidental part of village living. Yet, those who have taken a full-time job of raising poultry know that it is profitable. They know that added care and better birds, produce more eggs and larger birds. Both eggs and poultry meat have a high nutritive value. Gram Sevikas are taught poultry keeping during their training and they in their turn teach the technique to village housewives.

Perhaps, one of the greatest contributions home science makes in the production of more food is in teaching the Gram Sevaks the nutritional needs of the body as well as the nutritional values of foods so that they can sensibly discuss with the villagers not only the need for kitchen gardens but what this small kitchen garden production can mean in the total national production. Home science provides this knowledge to them.

One hundred million tons of food by 1963 is the goal set for the rural cultivator of India. This is a challenge to all those interested in and working with village families who raise food and earn their living by agriculture. Home science trained women are one of these groups interested in and working with those who cultivate the soil. The challenge to raise agricultural production is theirs too !



IT'S ALL IN THE DAY'S WORK FOR THE GRAM SEVIKA, BUT

Kamla Gautam Thinks There Is Much More To Come

KAMLA GAUTAM, a Gram Sevika of the Ladpura Block in Rajasthan is one who enjoys her day's work. When I met her in Rasulpur, her headquarters village, she was showing village children how to wash their faces properly. The children were enthusiastic about these lessons which are not taught in any school, and were apparently having great fun, frolicking in the cool water of the river.

Teaching village women how to sew garments, knit sweaters, prepare delicious pickles, how to read and write, teaching village children new songs and games, and while playing introducing them to good health habits, this and much more is all in the day's work of the Gram Sevika.

Kamla Gautam was born, bred and married in Rasulpur, and it was indeed a happy coincidence that she was posted as a Gram Sevika in her own village.

Kamla got interested in the community development programme through the Gram Sevak trainees of the Kotah Extension Training Centre who used to work in Rasulpur.

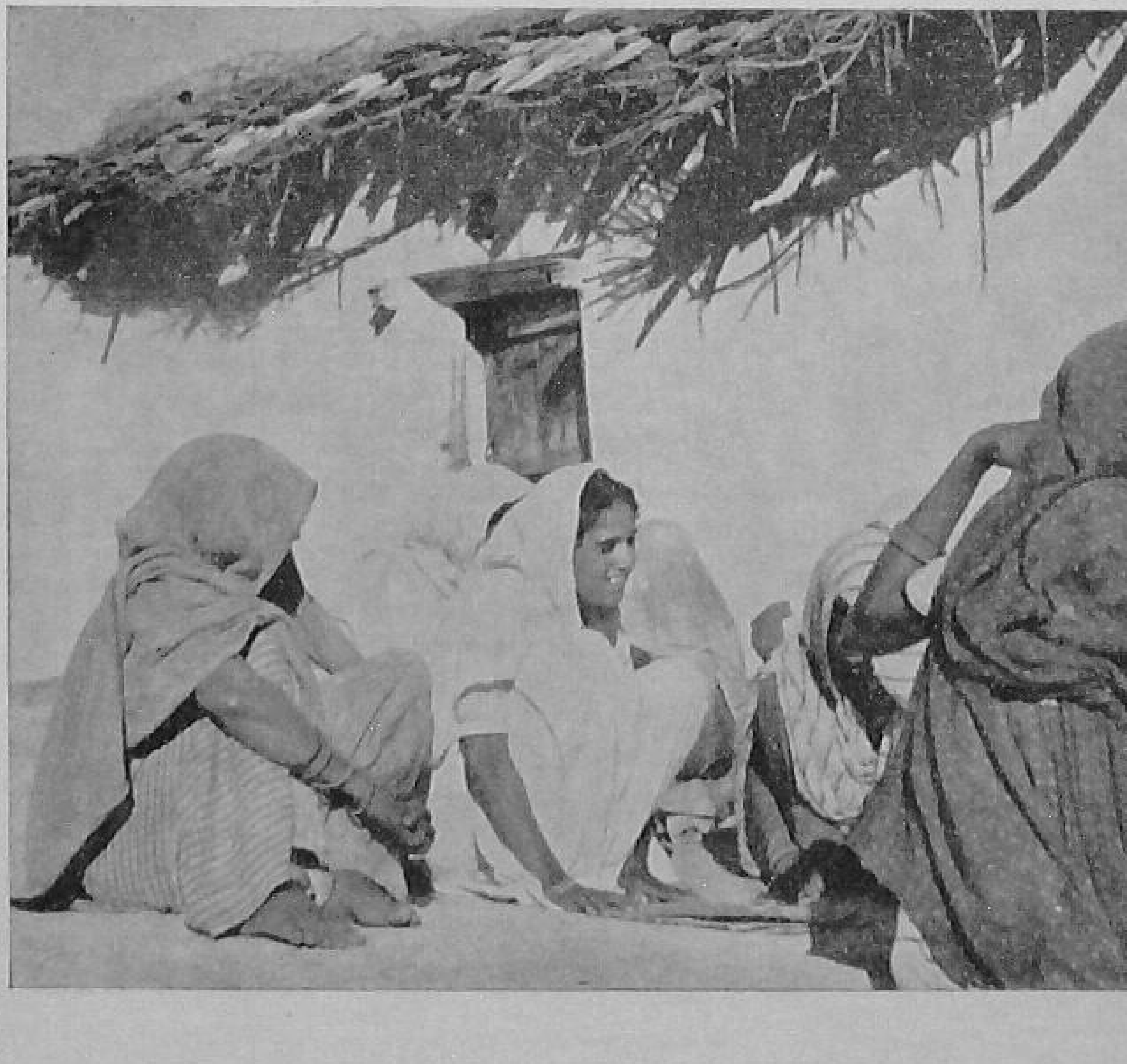
"The trainees used to clean the village streets, tell the cultivators about better farming practices and help them in so many things," Kamla said. "Everybody liked them and their village improvement programme. I asked them if there was any such programme for village women also. They told me about the Home Science Wing at Kotah, which was then just being opened. I had studied up to the middle standard, and I joined the Home Science Wing."

After finishing her one-year's training in the Home Science Wing, Kamla was appointed as a Gram Sevika in Mandana, a village 20 miles from Kotah. Six months later, she was transferred to Rasulpur, her home village. This was two years ago.

Kamla has ten villages in her circle. She spends about eight days in a month in Rasulpur. The rest of the time she works in the other villages.

Kamla is helped in her work by the 'Gram Kakis.' The Rajasthan government has appointed village women who command influence and have progressive outlook, as honorary Extension workers

Kamla Gautam with a group of village women



Introducing children to good sanitary habits is in the day's work too

known as Gram Kakis. These women village leaders are trained in better house-keeping methods and they are supposed to propagate them in their village. They are paid certain honorarium also. Eight out of the ten villages in Kamla's circle have Gram Kakis, and Kamla supervises their work.

Kamla has a busy day. In the morning she teaches village women good house-keeping methods and visits individual homes. In the afternoon she gathers village children and plays with them. In the evening she organizes group singing of *Bhajans* and *Kirtans*, spends the night in the village, and moves out the next morning to another one. She spends three nights in a village every month.

"My work is never dull or mere routine," Kamla told me. "Everyday I come across new problems and new situations."

While we were talking, an old woman came to Kamla. She had cut her finger accidently. Kamla immediately took out her first-aid box and dressed the wound.

"My knowledge of first-aid helped me in winning the confidence of the villagers of Ramnagar," Kamla said. "In the beginning the village women were most uncooperative. Nobody used to talk to me. A boy in the village had boils on his head. I washed them with a decoction of *neem* leaves. The boils were cured and the village women started believing me."

"I was not able to accomplish much in the first year," Kamla continued, "I could fulfill only half the targets. Much of my time was spent in getting introduced to the people and in winning their confidence. But now my targets are more than fulfilled."

Before Kamla started her work, few fruit plants were grown in these villages. Now every house in the ten villages of her circle has papaya plants. Some of them have already started bearing. Similarly, vegetables which formerly used to be grown only in the fields are now commonly cultivated in the kitchen gardens.

Kamla's knowledge of first-aid helped her in winning the confidence of village women

The habit of straining drinking water has now been fully inculcated in the village women, resulting in the lowering of the incidence of *naru*. Clean health habits have become popular with the young ones in the villages. They regularly wash their faces and clean their teeth. Village girls now comb and dress their hair regularly.

Through Kamla's efforts the nursing mothers in the villages have now realized the importance of properly timing the breast-feeding of babies.

"One of the most successful programmes has been the home-scale preparation of soap," Kamla said, "practically every housewife in my circle now prepares soap. You will find the children's clothes now washed at least once a week. Formerly this was never the case."

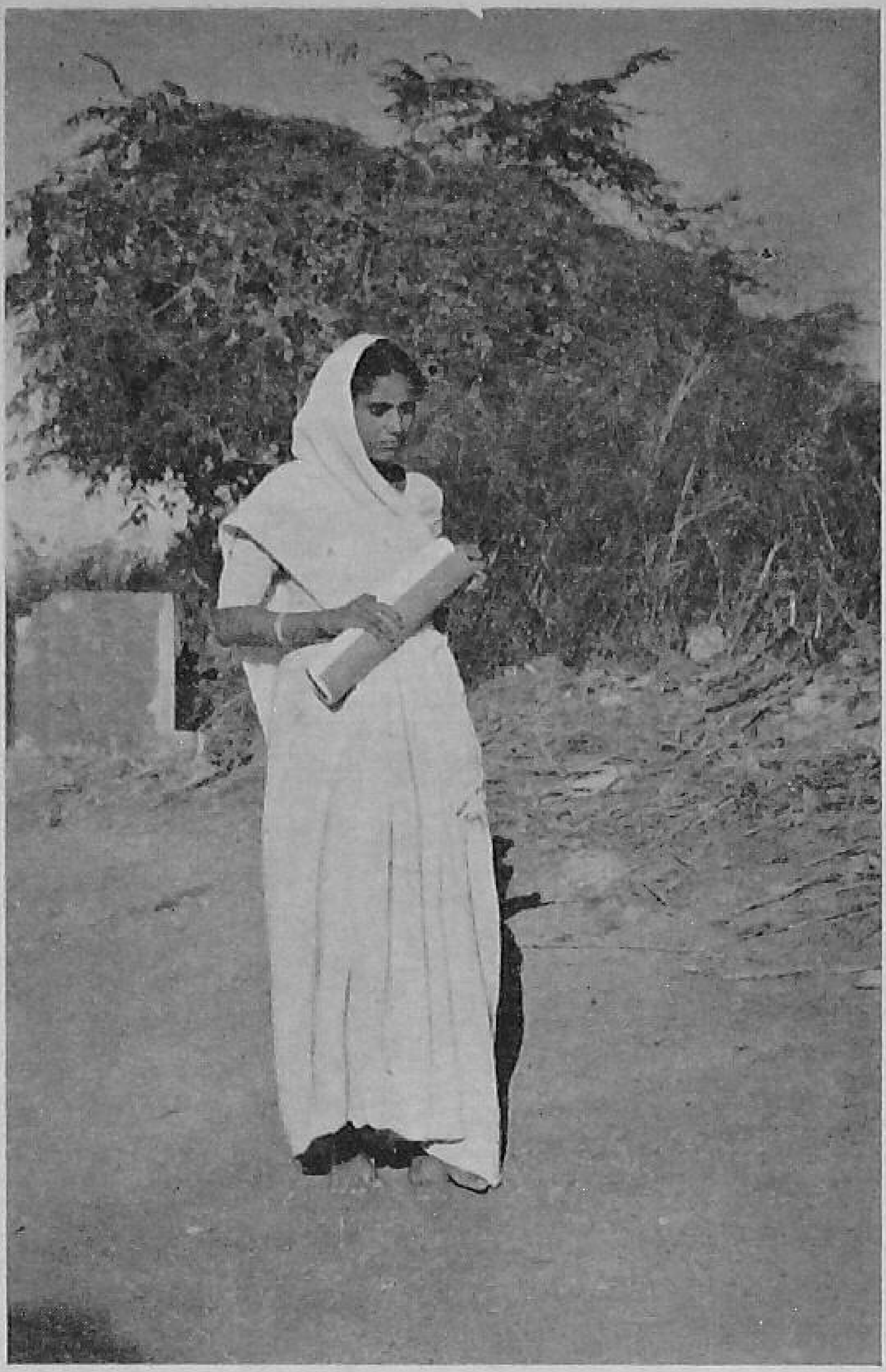
The same is the story of pickles, jams and *papads* which are now extremely popular with the village housewives. Formerly they were a luxury, which could be enjoyed only by the rich few in the villages. The others never knew how to prepare them. Kamla taught the village housewives the art of preparing pickles and *papads* and now in every house in her circle one can find a year's store of pickles of every type.

Food-safes made out of common earthen bins by fixing wire screens in them have been popularized in the villages by Kamla. The screens provide ventilation and make the bins ideal for storing foodstuffs. Every house-hold in the ten villages of Kamla's circle now has these improvised food-safes.

Kamla has organized *Mahila Mandals* in eight out of the ten villages of her circle, where sewing, knitting, *papad*-making, etc., are taken up on a community basis.

Many village women have learnt from Kamla how to prepare mats, fans and other utility articles from *khajur* leaves.

"I find that the smaller the villages and more backward the people, the more successful is the programme," observed Kamla. "Ramnagar, Ladpur-Zhopdia, Arhnia, are comparatively smaller villages. They have responded more to the programme than my home village Rasulpur has. Even here I find that the Harijans are more eager to take up the improvements. When I was posted in my home village I needed no introduction. But then there was definitely a bias against me. I grew up here, and the old women of the village thought it strange that a kid brought up by them should teach them better house-keeping methods. In course of time this bias was removed and any improvement which is profitable is now easily accepted by them."



"Even now the streets are dirty...... much remains yet to be done."

Kamla told me that *Magan choolahs* proved to be failures in the villages. She had constructed quite a few in the first year. But rain damaged them, especially the chimnies, and now nobody is ready to reconstruct them.

(*Continued on page* 40)

Get Rid Of The House Fly

—Alta Thomas

FLIES are very dangerous because they spread diseases such as typhoid, cholera, tuberculosis, dysentry and diarrhoea. They walk through their own vomit, excreta and other filth and carry thousands of germs on their fuzzy legs. Then they walk through our food and spread the germs on it. To check the spread of diseases we must destroy all flies in our homes.

Full-grown flies must be destroyed often, but destruction of full-grown flies alone is not sufficient. The eggs and the young ones must also be destroyed. Or better still, all the filth on which the flies can lay eggs should be destroyed.

Each female fly lays 150 to 500 eggs at one time and about 600 to 900 eggs during her life. Here is the life-history of a fly.

EGG—8-24 hours → MAGGOT — 2-5 days → PUPA—5-9 days → FLY → EGG.

Eight demonstrations of various methods of fly control which can be given to the Gram Sevika trainees are described below. The Gram Sevika trainees, in their turn, can give these demonstrations in villages.

Demonstration No. 1

POISON FOR FLIES

Equipment needed : Small plate, milk and formalin. (Formalin is available in all primary health centres.)

One of the best things to do to get rid of flies in our homes is to poison them. Put some milk in a saucer and add one teaspoonful of formalin. Place a piece of bread (*double roti*) in the plate so that it absorbs all the solution. Flies will eat this and die. Many dead flies from all over the house will have to be removed often.

Precaution : Always keep the poison mixture in a place where children cannot reach.

Demonstration No. 2

FLY PAPER

Equipment needed : Heavy paper, castor oil or *gur*, resin and knife.

We can make fly papers on which flies sit, get stuck and die.

Heat together five parts of castor-oil and eight parts of resin powder. Spread the mixture, with a knife, on a thick paper. Or, mix *gur* and melted resin to form a thin paste. Spread this on a piece of thick paper. Place the sticky papers around the house in many places to catch the flies. As the papers become full of flies, turn them. The papers are no good when dry.

Demonstration No. 3

KEEPING FLIES FROM FOOD

Equipment needed : One *dekchi* with tight lid, two open *dekchies*, a piece of *mulmul* or net cover and jam, *halwa* or any other semi-solid sweet.

Always cover food with lids or *mulmul* or net covers or keep it in a meat-safe so that flies will not sit on it.

Put the sweet in all *dekchies*. Cover one of the open *dekchies* with *mulmul*. Keep the other *dekchi* without any cover. Flies gather on the sweet kept in the open *dekchi* which is not covered. Call the

villagers' attention to this. Tell them that the flies probably have germs that cause typhoid, dysentry, tuberculosis, cholera, diarrhoea or intestinal worms which they leave on the sweet.

Demonstration No. 4

KEEPING FLIES OUT OF THE HOUSE

Equipment needed : Gauze.

One of the best ways to keep flies away from food, off the baby's face and hands, and in fact, out of the house is to cover doors and windows with wire-screen or thin mesh cloth.

Show the gauze, give details about its cost and show how to fit it on a window or a door.

Demonstration No. 5

SEWAGE DISPOSAL

Equipment needed : Suitable posters, phenyle or lime, literature on typhoid and sanitary latrine.

The danger of the spreading of typhoid and other intestinal diseases can be avoided by proper disposal of human excreta. If there are sanitary privies, teach each member of the family how to use them. Children must be carried to the privies until they can go alone. If there is no sanitary privy, cover human excreta with several layers of dirt.

Show poster with a picture of a sanitary privy. Point out the fact that flies cannot get to the excreta dropped in a sanitary privy. Show the picture of a person sprinkling dirt or sand over excreta. Repeat the fact that human excreta often contains germs which cause many diseases particularly typhoid, dysentry, worms and other intestinal diseases.

Tell the villagers that in a house latrine each person should put on a layer of sand or earth on the excreta after use. It would be better still to pour on phenyle or lime, if available.

Demonstration No. 6

KEEPING ANIMAL EXCRETA (COWDUNG AND THE LIKE) AWAY FROM THE HOME

Equipment needed: Suitable posters, flash cards or flannel graphs.

Animal excreta, as well as human excreta, have germs in them which cause sickness and death. Also moist animal excreta is a good place for the flies to breed. Flies lay eggs in the excreta. Eggs hatch and grow into full grown flies. Flies also drop germs on the excreta and at the same time germs in the excreta are picked up by them.

We should keep all animal excreta away from our house or spread it out to dry and cover it with lime or borax. Better still if we put it in a compost pit.

Show poster with animals and animal excreta near a house with flies around. Show the picture of a farmer putting the excreta in a compost pit and the picture of a person spreading the excreta to dry and sprinkling lime over it.

Demonstration No. 7

KILL FLIES WITH SPRAYS

Equipment needed: Spray solution, hand spray pump.

Flies can be killed in and around the house by spray solutions that are available in the market.

Have a good hand spray pump with spray solution in it. Show the bottle or the can which contains the solution. Actually spray on a wall in the house to show how to use a sprayer. It is important to mix and apply the solution according to the directions given on the labels of the bottles or cans.

Precautions: Do not spray oil solutions near fires. Do not expose skin to the insecticides very long. Do not allow insecticides to get in the food, on the dishes or utensils. Keep the spray pump away from children.

Spray kills flies because it is a poison. Since spray is a poison, you must stay out of rooms for atleast about 30 minutes after spraying. If the spray solution comes in contact with your skin wash it off immediately. *Be sure to store the spray solution always in a place where children cannot reach.* Sweep dead flies and burn.

(*continued on page* 40)

there is more in home science training than meets the eye

What The Trainees Learnt In Burdwan And Fulia

—Rajammal P. Devadas

I found a tremendous change in the 38 Gram Sevika trainees of the Home Science Wings at Burdwan and Fulia, when I met them again after a gap of nine months.

It was in November 1957 that I met them first. Then they were just admitted to the Home Science Wings. They were shy, and were finding life in the Home Science Wings strange. They had to cook their own food, wash their own clothes and clean their houses, even the latrines. All of them, irrespective of the castes and communities to which they belonged, were living together, working together.

None of the trainees then had any idea of the type of training they were to undergo, or the type of work expected of them after completing their training.

Majority of them had joined the Home Science Wings because there was an economic necessity for them to work or because they wanted to keep themselves occupied or because they just happened to join the course with no specific purpose. Only few had joined with the object of working in the villages.

I met them again in August 1958. This time they were all smiles. Their personalities had blossomed. They were confident of themselves and no longer shy. They were interested in their work and were feeling responsible.

"How did all these changes come about?" I asked a trainee.

"We learnt many new things during the last nine months," she replied. "We have been independently working in the villages, meeting different types of people. All of us have come closer to each other and no longer are we aware of our castes and communities. I think all this has helped to broaden and change our outlook."

"We think that the greatest change that has come over us is in our eating habits," another trainee said. "There was a time when we thought it horrible to eat rice without draining the water in which it was cooked. But now we relish rice without draining the water. Now we do not peel the vegetables we eat. Also we are not using much oil for frying the vegetables. Formerly we never accurately measured our daily rations. The measuring utensils have now become indispensable to us. We have introduced new foods like salad and peanut butter in our daily diet."

The trainees regularly plan menus for weeks in advance. Each one of them daily consumes food which supplies 2,700 calories at a cost of only 83 naye paise.

During their nine months' stay in the Home Science Wings the trainees have

improved their health. Twenty-six of them put on between one and 13 pounds in weight; only eight lost from one to seven pounds; four of them neither lost nor gained any weight.

The trainees get a stipend of 50 rupees per month out of which they make a saving of five rupees. They spend 23 to 25 rupees on food and the rest on personal necessities, teaching aids and articles for the personal kit, and on entertainment.

"Good management is the key to success," a trainee told me. Another said, "We have not spent a single pie on *dhobi's* service during the last nine months we are here. We wash our own clothes. This not only saves us money but our clothes also last longer."

When I went round the campus the trainees showed me some of the articles they had prepared during their crafts period. They had made baskets from palm leaves and hangers, food baskets and toasters from tin wire. With plaster of paris they had made beautiful wall decoration pieces. They had learnt to stitch everyday clothes. From the village women they had picked up the craft of preparing Kanthas.

The trainees regularly decorate their little houses with Alpana. They live neatly and arrange their belongings tastefully.

During their village work, I found, the trainees had successfully persuaded the villagers to get vaccinated against small pox, cholera and other diseases. They had popularized soak pits, dug-well latrines, compost pits, fly traps, hay boxes for cooking rice, etc.

The trainees have themselves prepared flashcards, puppets, flannelgraphs, posters, wall newspapers, charts and other visual aids for use in their village work. They have also learnt to operate a film projector.

"In the beginning we were afraid that the village women will look down upon us," a trainee told me. "But they took tips from us for preparing food for the babies. Village housewives are now very fond of green papaya soup, *kancha*, *papai*, *shate* and rice milk. We have also taught them the preparation of papaya squash and peanut butter."

"Our work is never smooth or dull," another trainee said. "Sometimes we get depressed after working in the villages. The village women have no leisure even for thinking about their problems. They are not yet conscious of their place in the society. They live a monotonous life, with no rest or recreation. How much time and labour they can save if only they apply some of the methods we know."

"We have much to learn from the village women with their magnanimous patience," the trainee said. "They have revealed to us that life is full of problems and we have to face these problems courageously. Though poor, they have taught us how to be hospitable. They have taught us simplicity and frankness."

What a change the trainees have undergone only after nine months' training, I thought.

"Life is a great and noble calling, not a mean and grovelling thing to be shuffled through, but a lofty and exalted destiny."

Two Things Home-makers Should Know About

—Ida Hildibrand

1. Window Curtains

WINDOW curtains serve three good purposes—they add to the attractiveness of a room, they keep curious people from peering into the room, and they keep strong light from coming into the room.

The home-maker should picture to herself the condition of her room when selecting curtain material for windows.

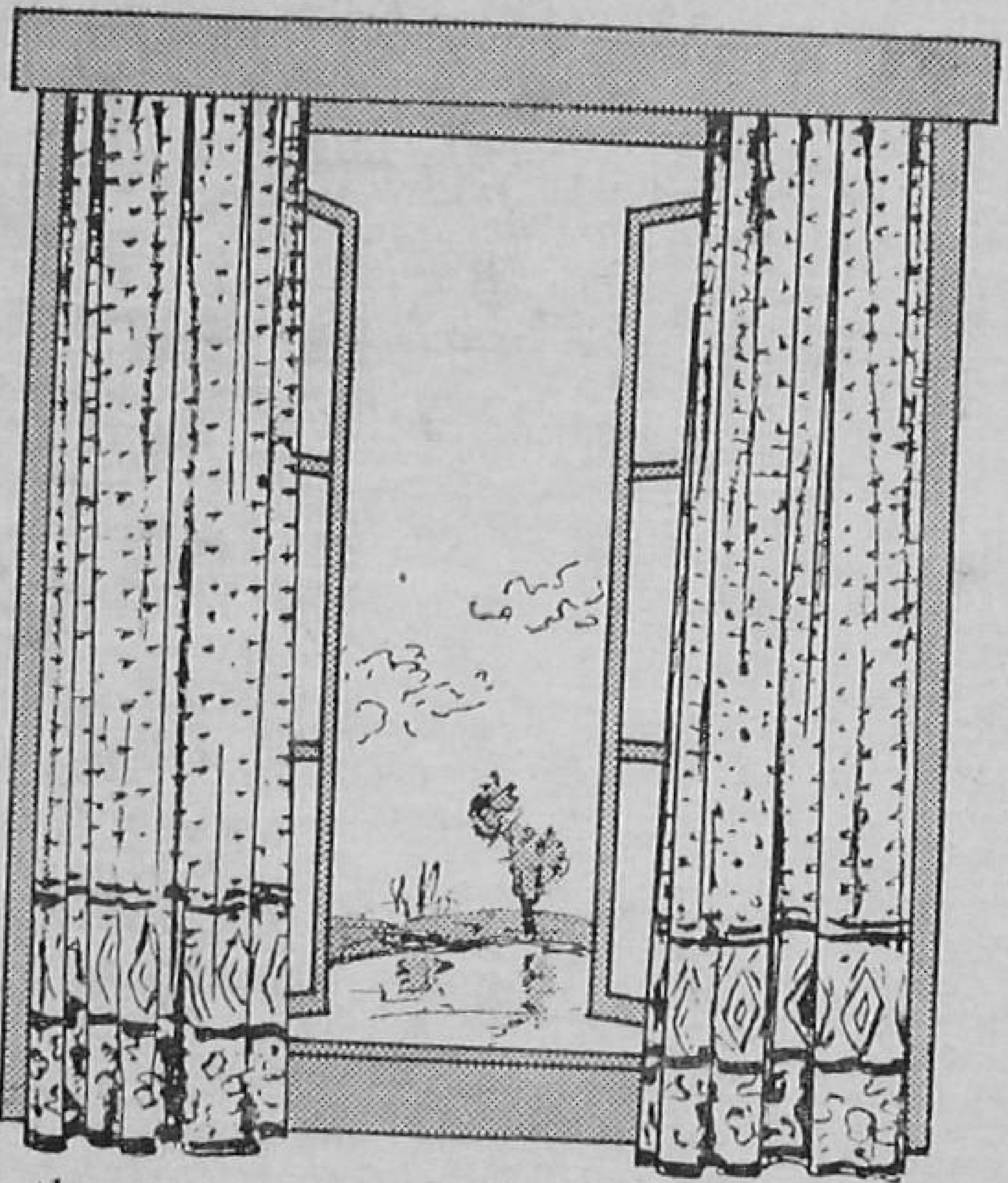
If the room is dark, she may select a warm-coloured cloth such as yellow or rose. If the room is too bright, she may select blue or green curtains which give a cool effect.

In India, many beautifully-coloured handloom fabrics are available at reasonable prices. Some of these fabrics are plain-coloured, some are of novelty weaves, some are striped and some plaid. Others may have colourful hand-printed designs.

If there is pattern in the furniture covering or the rugs in the room, the home maker should select curtain material with little or no pattern in it. Too much pattern in the room makes it appear too active, whereas less pattern gives the room a restful appearance.

The colours and designs of the curtains should harmonize with the furnishings of the room, and also with the room size and the size of the windows. Finer weaves and small designs are suitable for small windows and small rooms. Large patterns are good for large windows and large rooms.

Casement windows are common in the type of homes we see in India. These may be curtained from top to bottom



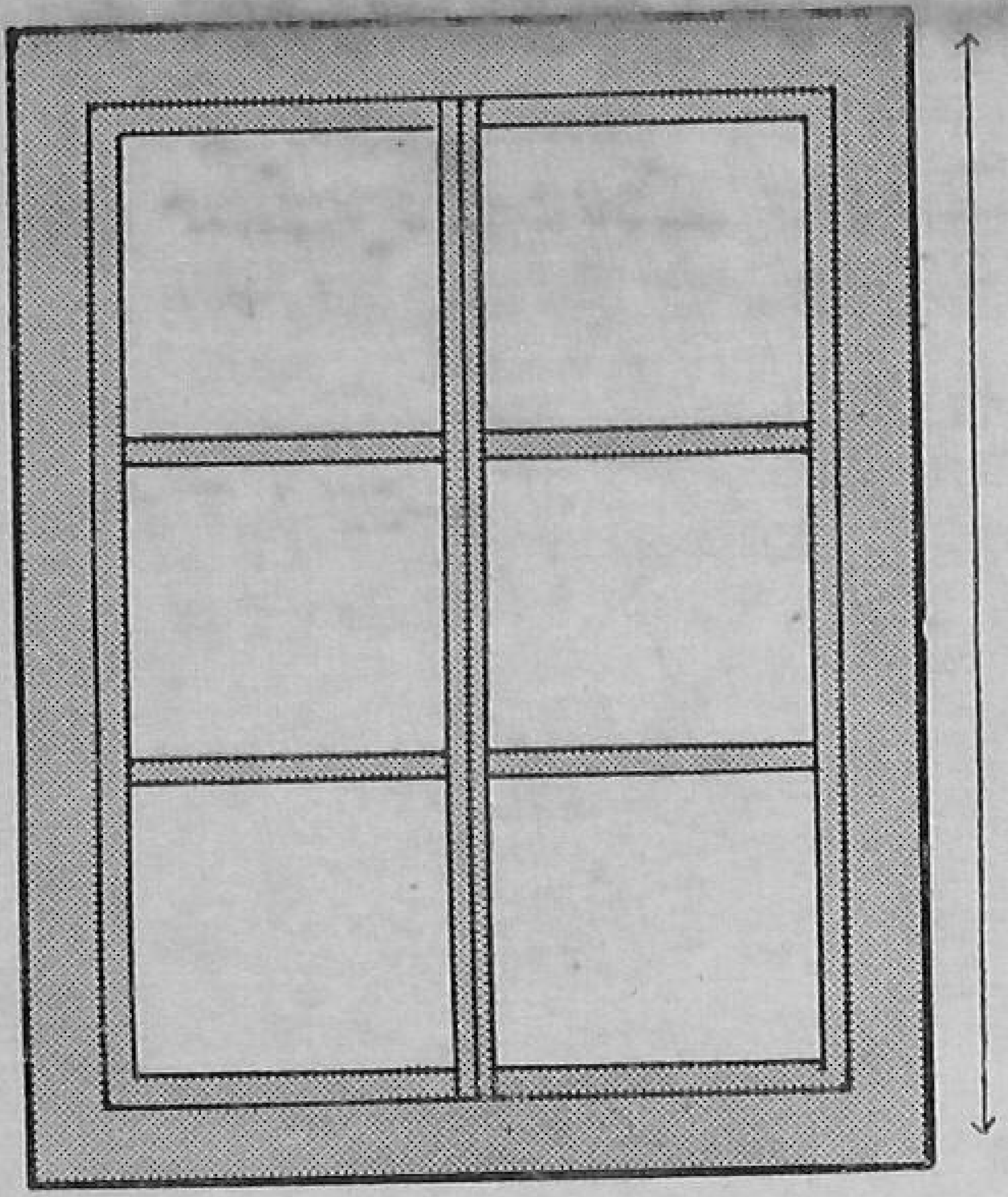
or the upper part of the window may be left uncovered to let in breeze.

We will consider the full-length window, with a bamboo or wooden curtain rod at its top. This rod may be hung on brackets fastened to the top of the window frame. If there is only one window in an end wall, the window and room proportions may be improved by extending the rod beyond the window frames. Also, this may make for better use of swinging casement windows.

Whichever way you hang the curtain the following amount of cloth should be purchased.

The full length of the window-frame *plus* a minimum of three inches for the

upper casing (hem) and heading (which makes a frill, to be used if there is no cornice board over the curtain rod), *plus* four and a half to five inches for the lower hem of the curtain.



As to the width of the curtains, skimpy curtains are not attractive. Only full curtains are attractive. This means that two curtains, that is, two widths of the material, usually should be purchased for each window.

MAKING THE CURTAINS

First of all, when planning to make window curtains, if there is any danger of the cloth's shrinking, allow it to stand for some time in warm water. It is best to cut the selvage off from the cloth before putting it in water, as the selvage usually shrinks more than the rest of the fabric. Take out the cloth and hang it smoothly in shade, or with the wrong side out, to protect the colour from sun-fading. Dry it, and press it.

Next thing is to cut the cloth according to requirements. Be very careful to match the design, if there is any, in the two curtain widths.

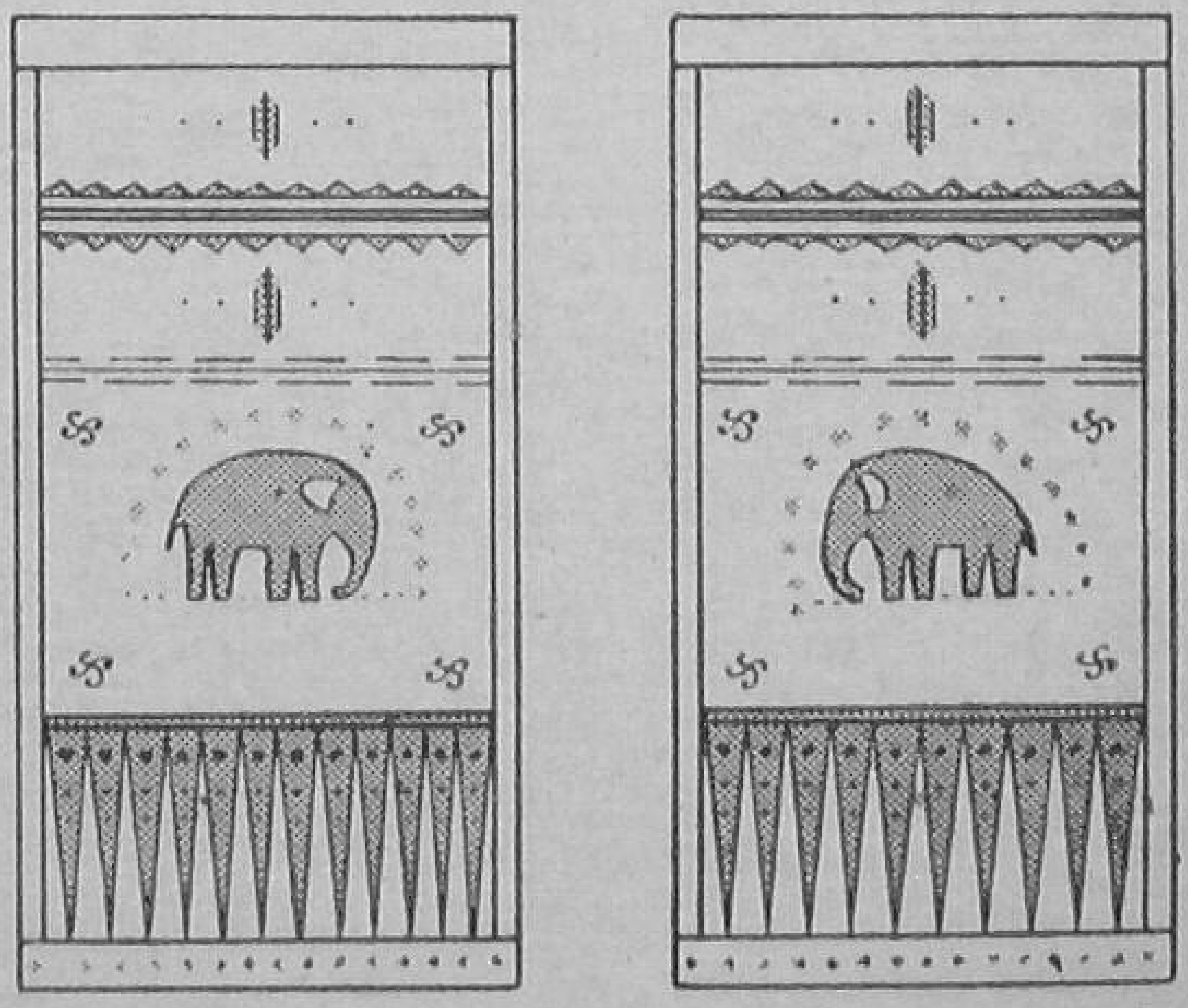
If you are working with a striped, plaid, or patterned piece, be sure that the design, if there is an up and down, all runs the same way. For example, elephants, human figures or trees must be made heads or tops up. All horizontal lines, stripes, plaids, and patterns should be symmetrical on the two curtain pieces.

The edges of curtains should be hemmed before hemming the ends.

Baste the hems in the edges of the curtains. Accurately measure as you baste. Turn the raw edge of the cloth one-fourth inch under, then make the hem one inch wide, or a bit wider if you prefer to do so. Preferably, finish the hems by hand with even, inconspicuous stitches, using matching coloured thread.

After you have hemmed the edges of the curtains, you are ready to finish the ends.

Hem the upper ends of the curtains first. Consider the size of the curtain rod when measuring for the casing and heading. The casing should be loose on the rod. The heading above it should be three-fourth to one inch in width. That will mean that you should make a finished hem on the top of the curtain at least two and a half to two and three quarters inches wide. Turn the raw end of the cloth one-fourth inch under, baste it if you wish. Then make the final hem, measuring accurately as you did before. Baste this hem in carefully. As a machine hem is stronger, and the machine-stitched casing is better than the hand-stitched casing, you may machine-stitch the hem, and the heading. Stitch carefully, leaving the



needle down each time at the end of the hem, and stitching back one inch, to reinforce the end of the hem.

Now, you are ready to hem the lower ends of the curtains. Put the curtains up in order to see how they hang. Mark the ends of the curtains at the bottom of the window frame. Take the curtains down, turn in the raw edge one-fourth inch, as you did before, measure and baste the hem carefully, and finish it with neat hand-stitching.

If curtains are to be pulled frequently, metal rings sewn on to the tops of the curtains will make it easier to pull them back and forth.

Press the curtains and hang them. Don't they make the room look attractive ?

2. Hemming Table Linen

THE beautiful, indigenous embroidery designs of India can be used on table linens. The colour schemes used in them should receive careful consideration, but that is a separate problem. Hemming the table linens, however, will usually improve them.

Table linens should first be evened by pulling a thread on each edge and cutting along it. Some times threads are pulled, hems basted in and hemstitched. This finish makes the hems straight and of an even width.

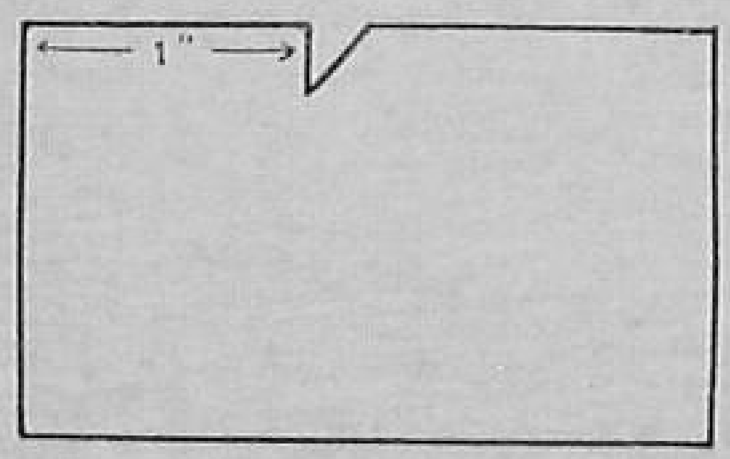
All hems should be accurate in width and finish.

In order to make hems perfect in appearance:

1. Pull threads and even the cloth.
2. Baste edges carefully, using an accurate gauge for measuring widths.
3. Baste corners carefully, making squared corners or mitered ones, as desired.
4. Stitch hems by hand, making fine, even stitches.
5. Launder the finished product, if necessary, and press it carefully on the wrong side, on a well-padded board.
6. Fold it neatly, leaving the corners outside, in order to show the well-finished hems and corners.

MEASURING HEM WIDTH

The best way to measure the hem width is with a cardboard gauge. Decide on the width of the hem to be made, then cut a cardboard gauge with which to measure when basting the hem in place. Perhaps you wish to make the hem one inch wide. Here is how you should cut the cardboard gauge.



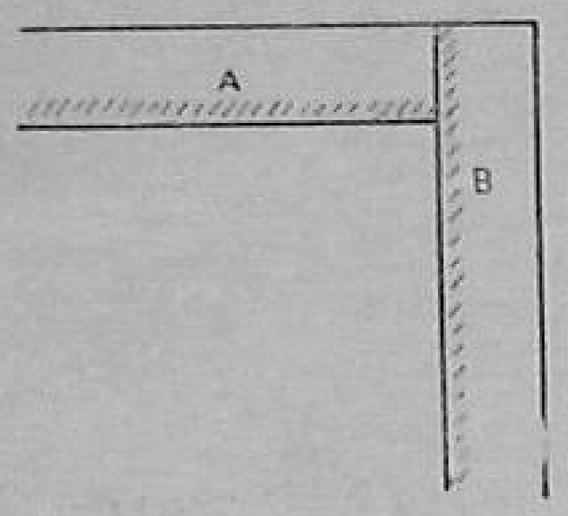
MAKING THE CORNERS

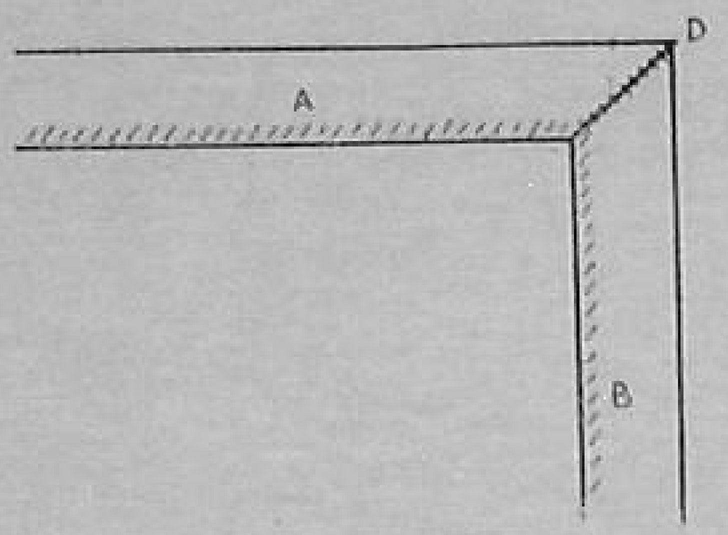
Corners should be uniformly and accurately made. Poor workmanship will show up on the corners.

There are two good ways of finishing corners. One is a squared corner, which crosses over. The other is a mitered corner, where the centre triangle of the excess cloth in the fold is cut out on the diagonal across the corner. Of course, a seam allowance must remain where the diagonal fold comes. This fold can then be finished as the other hems are finished.

Both types of corners are suitable for table linens. Each, finished neatly, can be beautiful. This is how you should make the corners.

For the squared corner, hem A is basted and finished. Then, hem B is basted over hem A at the corner and finished. You may trim some excess cloth from the end of hem A where it will be covered by hem B, if it otherwise seems too heavy.

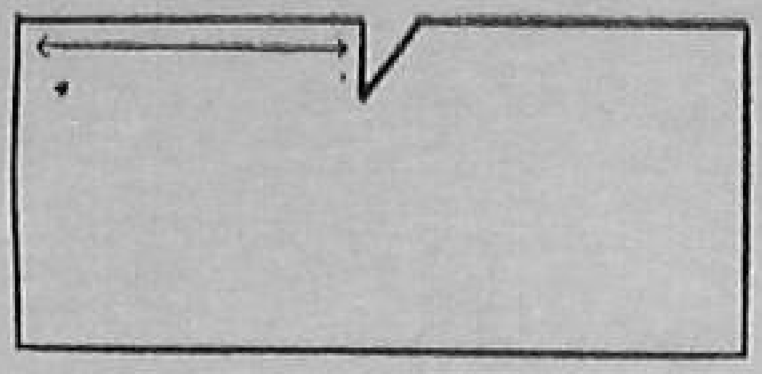




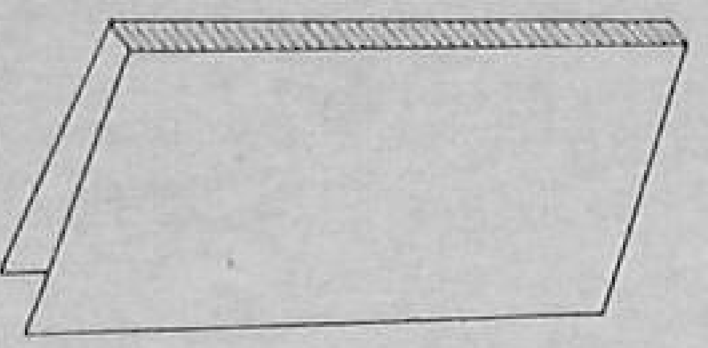
For the mitered corner, hem A is basted up to point C. Next, hem B is basted up to point C. Excess cloth is cut away, allowing for a one-fourth inch seam on either side of line CD. The edges are basted together, and then whipped together.

MAKING THE FRENCH HEM

The French hem is very good for finishing table linens. The first step in making a French hem is to baste the hems, making squared or mitered corners, as desired.



Then fold the hem and the body of the cloth together, bringing two even folds upwards, where they can be carefully whipped together, from right to left. When the article is pressed flat, the stitching is inconspicuous.



Edges should be straightened by pulling threads. Hems should be measured accurately, and basted carefully. Corners must receive careful treatment. Hems should be finished with fine, even stitches, and then pressed. If done this way, hems will be beautiful.

If the mistress of the house possesses the qualities of a true life partner, there is nothing that will be wanting in the house. . . . If the woman of the house does not have these qualities, possession of everything else will not be of much avail. . . . Of all her qualities, her purity, chastity and unstinted devotion to her husband are of the greatest value . . . . . .

THIRUKURAL

Folk Arts Of Bengal That Need To Be More Popular

—Santi Chakravorti

Colourful Kantha

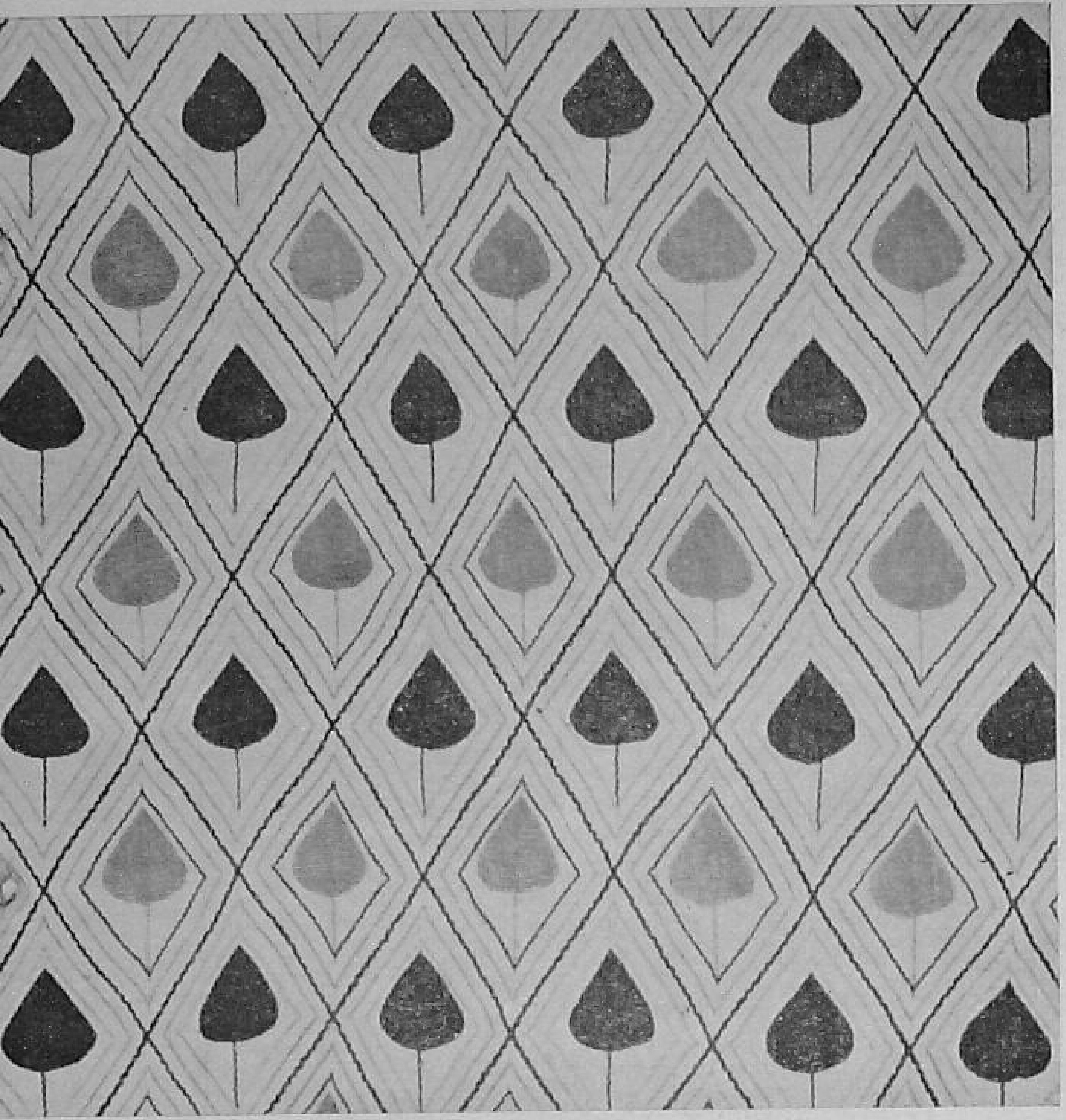
THE beautifully embroidered quilt-like Kanthas are common in the rural homes of Bengal. Prepared by women in their leisure from old *saries* and *dhoties*, the colourful Kanthas are used as wrappers, mattresses, bed-spreads and towels. The soft texture of the *saries* and the *dhoties* from which Kanthas are prepared make them especially useful as diapers.

It may take anything from a few days to a full generation to prepare a Kantha, depending on its size and the designs embroidered on it. Some elaborately embroidered Kanthas are treasured as family heirlooms.

The craft of preparing Kanthas is, however, not so popular today as it was once. Kanthas are a symbol of a time when life was not hurried, women were contented and had enough leisure. Kanthas were a creation of their love in which their feelings and emotions were expressed. The women wanted to create something from the depth of their imagination that could be preserved for ages so that their posterity might see.

The craft of preparing Kanthas is more common among the Muslim women of Birbhum district, who are yet unaffected by the economic and social changes of the present day busy life. They prepare beautiful Kanthas and can rightly claim to be the custodians of the art.

For preparing an ordinary Kantha, worn out *saries* or *dhoties* are spread over one another and their sides stitched with a coloured thread. This thread is usually taken from the coloured borders of the *saries*. The material is then sewn together



in preparing Kanthas, specially in those used as *chandrapats* and flags. Lotus is a common motif used in *chandrapats*. The motif is cut from a coloured piece of cloth and is stitched on the Kantha by hemming the edges.

Sujni Kanthas are of a rectangular shape and are used as wrappers for books and other valuables. They are decoratively embroidered with motifs of flowers, trees, animals, human beings, etc. A special Kantha, *arsilata*, is used for wrapping the mirror and the comb. Kanthas are also used as pillow covers, covers for wallets, handkerchiefs, etc. In olden days, when palanquins were in vogue, Kanthas were used as carpets in them.

In modern times, only a few women take the trouble of preparing Kanthas, and

with small running and simple stitches placed close to each other and the Kantha is ready. The stitches which are given in a particular pattern to form the desired design, strengthen the worn out cloth-layers. Kanthas are sometimes also prepared from new cloth.

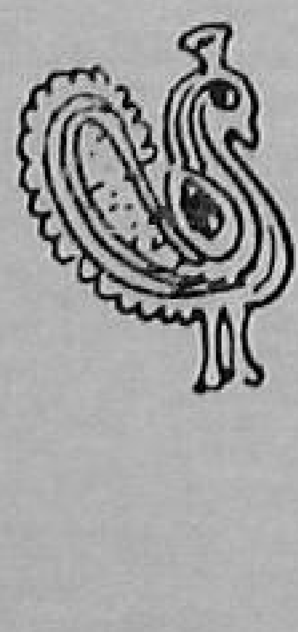
For preparing Kanthas with running stitches and without any design, it takes only a few days to a month, depending upon the size of the Kantha and the time at the disposal of the worker. If the Kantha is elaborately embroidered, it may take years to complete it.

The designs usually embroidered are of *gulanchalatas*, *kunri* flowers, lotuses, *sankhalatas*, elephants, palanquins, etc. There is no hard and fast rule about the design to be used and the choice is left completely to the worker. There are Kanthas on which the whole story of Ramayana is told in embroidered pictures. In former days women who could invent new designs for Kanthas were highly esteemed.

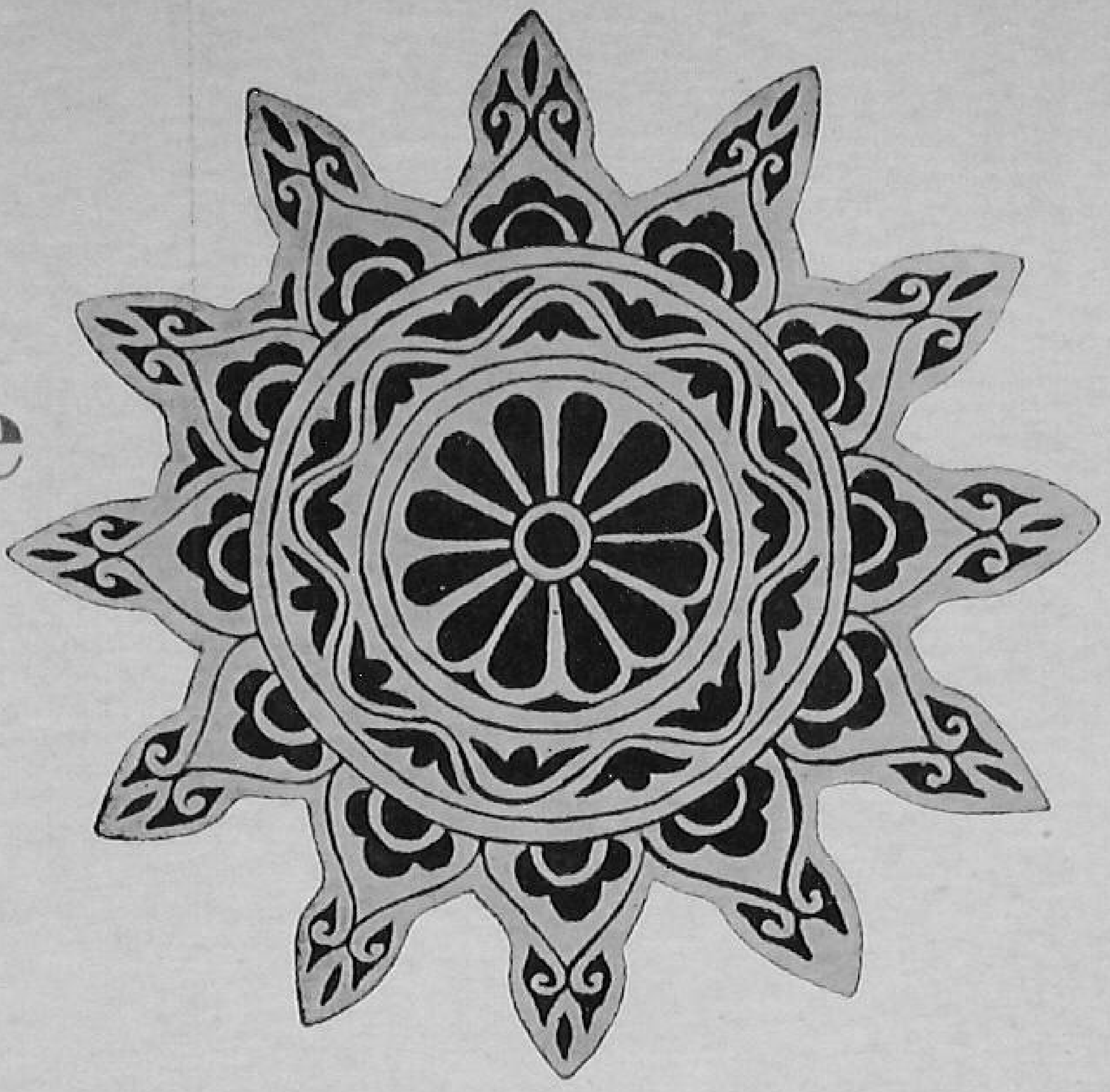
Sometimes, applique work is also used

the craft is not very popular. This is mainly because in the bygone days Kanthas were prepared by the women of the house in their leisure time and at present it is difficult for women to find enough leisure to peacefully pursue the craft. It takes patience and concentrated efforts for months to prepare a really good Kantha.

If given proper impetus the craft can certainly be revived, as these beautiful works of art can find a ready market, and the women of the rural areas can gainfully utilize their leisure.



And Attractive Alpana



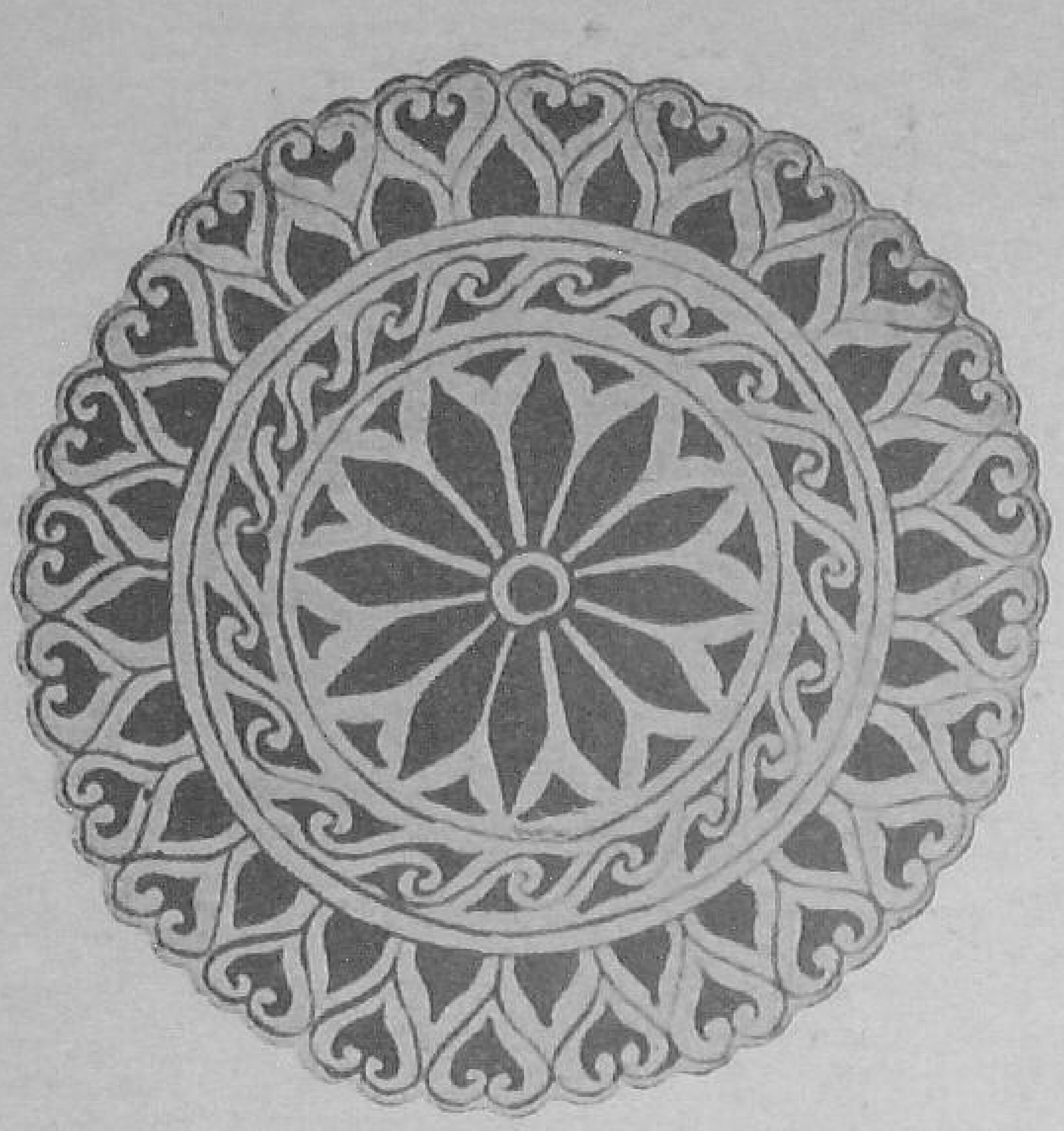
THE striking designs, mostly in white, drawn on the mud floor of a rural home in Bengal, attract the eye of any visitor. These designs, or Alpana as they are known, are pleasing to the eye and add beauty to the home.

Alpana is a traditional art, conceived and developed by women of Bengal ages ago. It is considered auspicious, and during a religious or cultural festival, every Bengali home is invariably decorated with Alpana. It occupies a place of pride in the social, cultural and religious life of the people of Bengal. The exact origin of Alpana is not known but it is generally accepted that it had been inspired by the different *vratas* or the religious rites performed by Bengali women for attaining cherished desires and for celebrating the changes of seasons.

Alpana is usually drawn on the floor with a fine paste made by grinding rice which is soaked in water. A small piece of cloth soaked in the paste is held between the finger-tips and is slightly pressed by the thumb to facilitate easy flow of the paste. The design is then drawn from memory mainly with the help of the middle and the ring finger.

The motifs which are generally flowers, creepers, birds or fish, taken from nature, are by no means an exact copy of the objects. The artist by her own imagination, draws these symbols forming beautiful designs.

Sometimes, along with the rice paste, colours are also used. Generally, the powder of *bel* leaves is used for green, turmeric powder for yellow, powdered burnt rice husk for black, and powdered brick or powdered *avir* for red.



On all festival days or at the time of a religious ceremony Alpana is also drawn purely for decoration. The designs used in ceremonial and religious Alpana are traditional, and the artist has mainly to follow the traditional motifs. She can use her own imagination for filling the space. However, the Alpana drawn by two artists for the same occasion is never exactly alike, because each artist draws upon her own imagination to the full, and follows her own ideas in her decorative work.

Apart from the floors, Alpana is also drawn on walls, on *Mangalghats* or earthen pitchers used in religious functions, on *pidis* or low wooden seats and on other objects used in religious ceremonies.

A *Mangalghat* filled with water and with a mango twig having five leaves is an essential part of every religious ceremony in a Bengali house. During a marriage ceremony, the bride and the bridegroom are received with the *Mangalghat* and clay lamps contained in a small matted tray, all beautifully decorated with Alpana.

The place where the guest of the house sits and the path he walks on are usually decorated with Alpana.

Alpana is also drawn on a *pidi* or a low wooden seat which is used during a marriage or a christening ceremony and other religious functions.

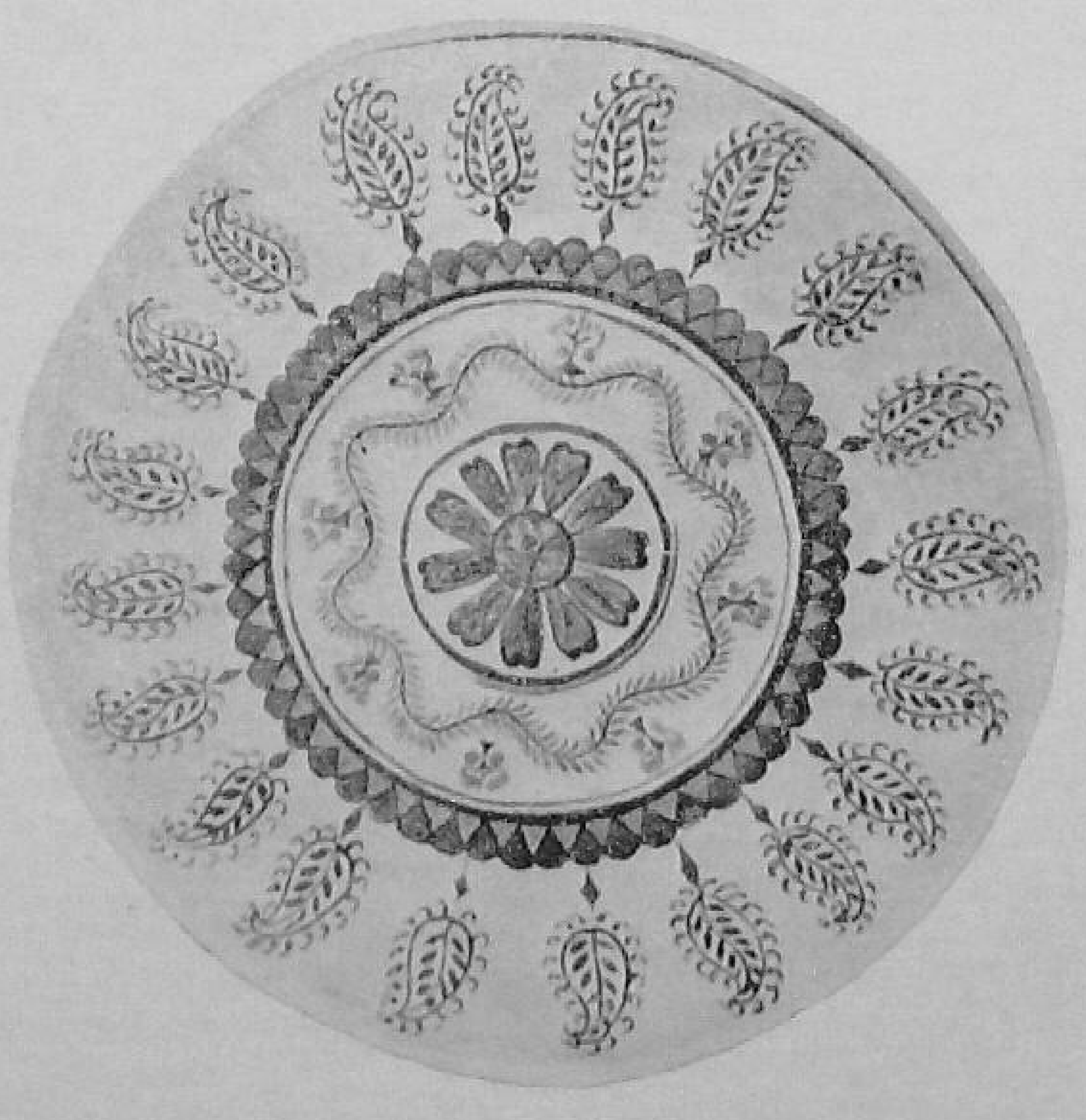
Motifs used in the Alpana drawn during the *vratas* are usually illustrative of the folk-lore attached to the *vratas*, and the themes of these illustrations are varied according to the different *vratas*.

Lakshmi vrata is celebrated all over Bengal on the full moon day in the autumn. From morning onwards the rooms in the house are decorated with Alpana. Ears of corn and the footprints of goddess Lakshmi are the special motifs drawn during this *vrata*.

Bhaduli vrata is the worship of the goddess of rain. It takes place in July when the rivers and tanks are over-flowing, when the men folk have gone out to the river or the sea, and the mothers, wives and sisters are anxious for their safe return. Alpana drawn at this time depicts rivers, birds, etc. The women place a flower on each design and offer prayers for the safe return of their men-folk.

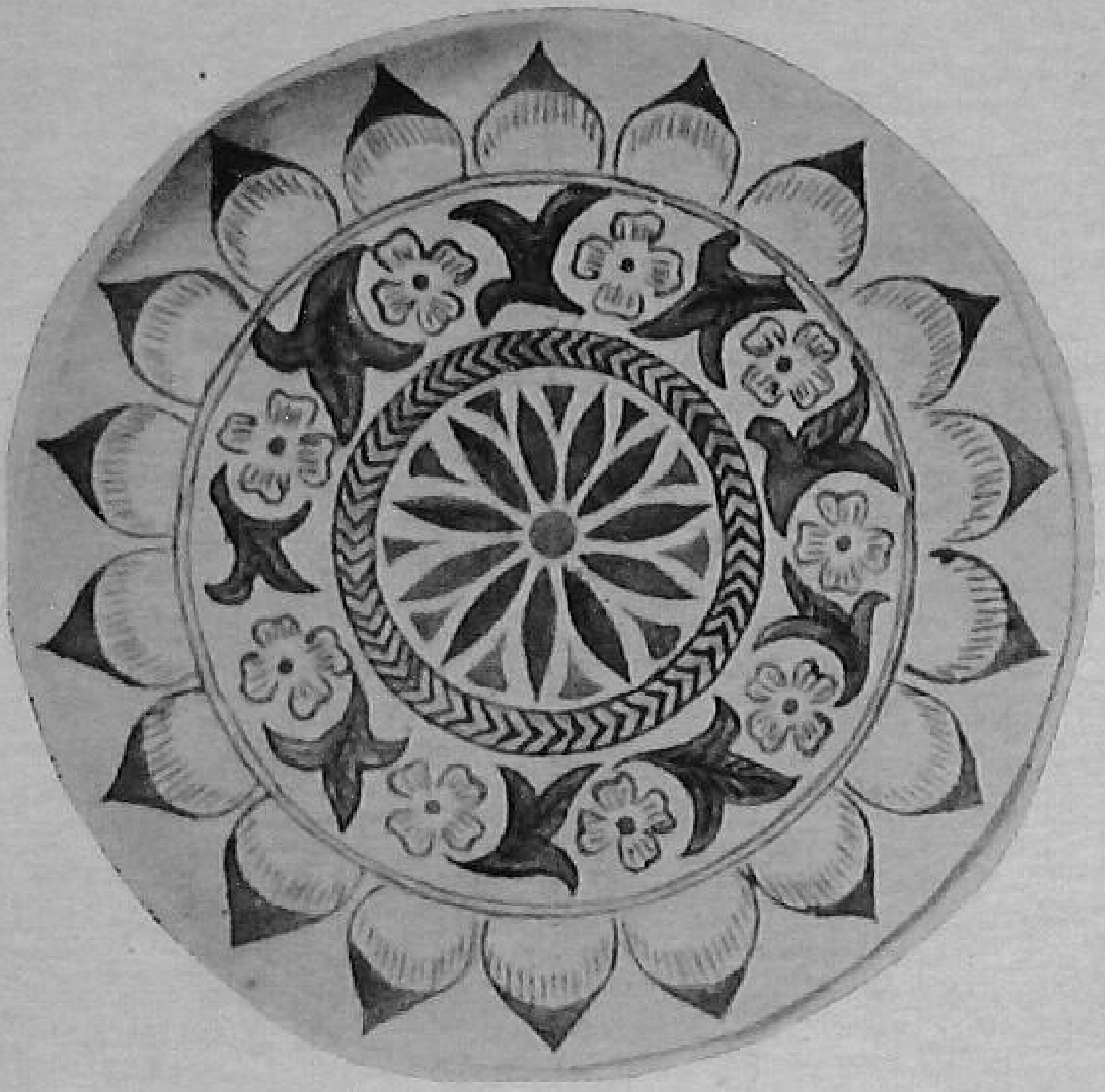
Sejuti vrata is the worship of the goddess of evening performed by the village maidens every evening, for a month , during October and November.

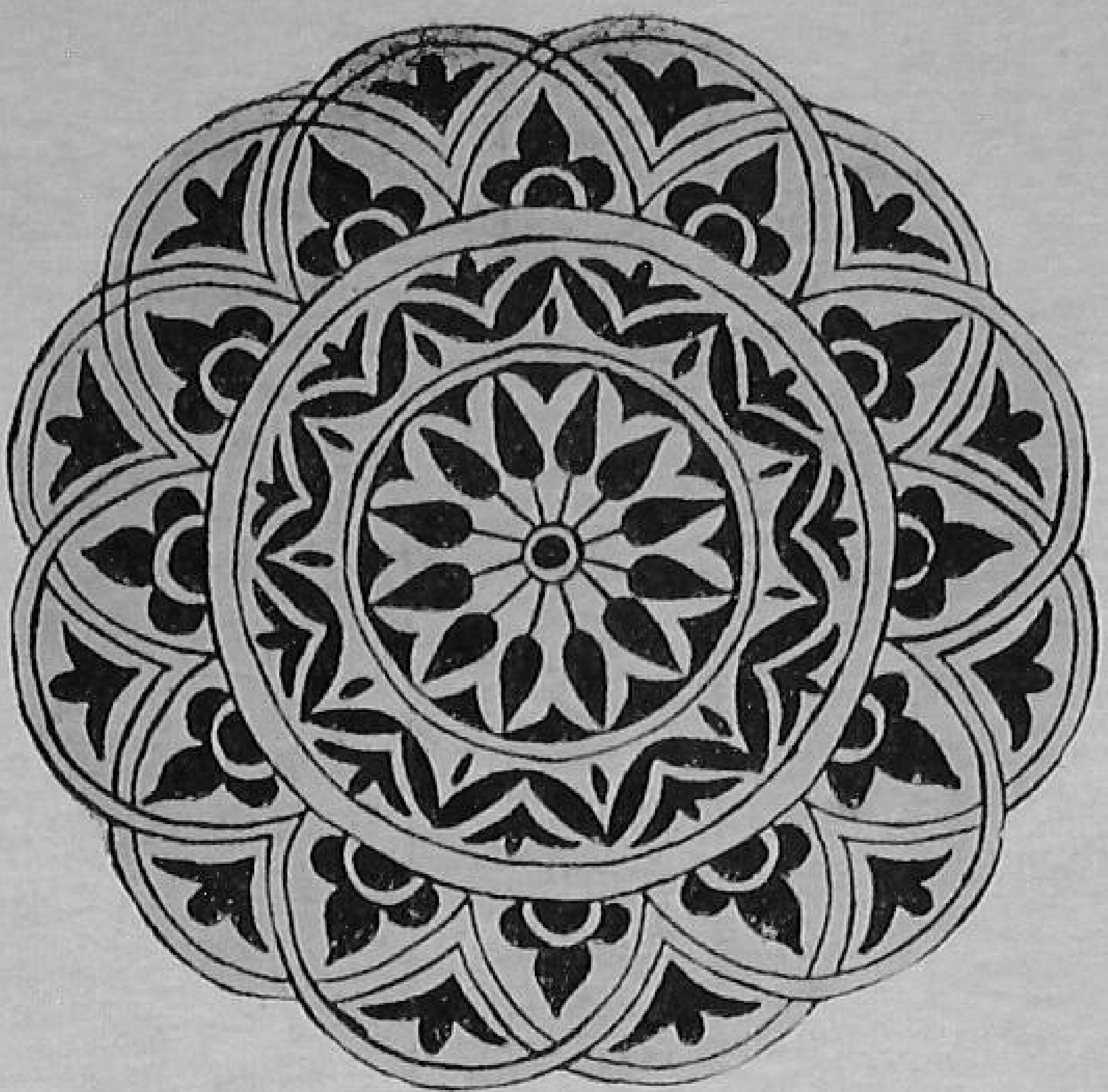
About 52 motifs like those of a palanquin, a bird, a comb, a mirror, the moon,



the sun and a small branch of a plum tree are drawn. The girls then place flowers on each design and offer prayers.

It was Gurudev Rabindranath Tagore who adopted Alpana for the modern times and introduced it into Shantiniketan.



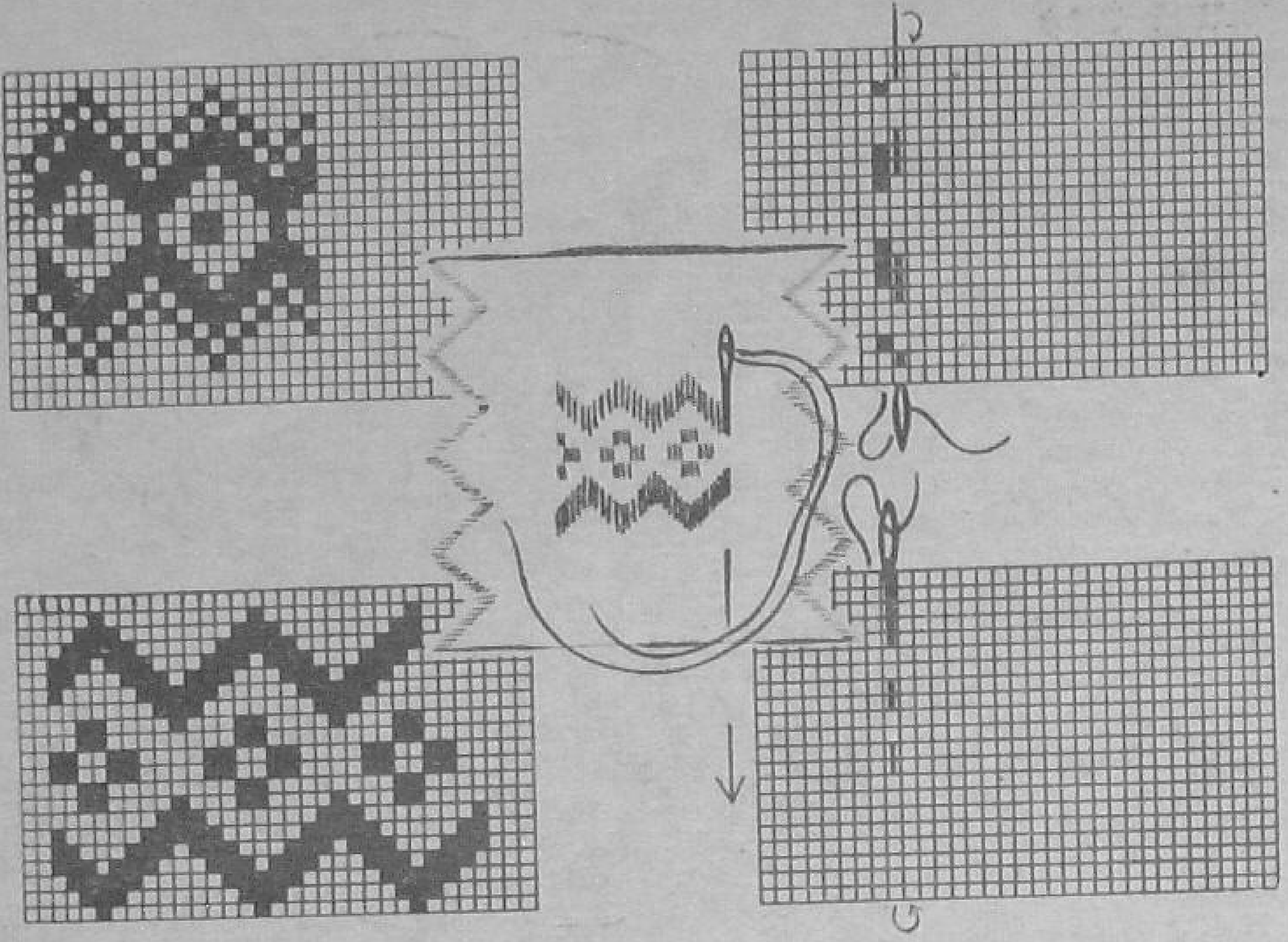


At every festival celebrated at Shantiniketan, decorative Alpana, suitable for the occasion, is drawn. On these occasions, varied materials like flowers of different colours, leaves, corn and coloured powders are used besides the rice paste, for drawing Alpana. During *Barashamangal*, the festival organized for the worship of the rainy season and *Briksharopan*, the tree planting ceremony, Alpana is drawn in different colours.

At the time of *Halkarshan*, the festival organized to celebrate the importance of cultivating the land, Alpana is drawn with corn, the product of the land.

During the Independence Day celebrations on 15th of August, Alpana is drawn with the help of green leaves and yellow and white flowers to signify the three colours of the National Flag.

During festivals like *Maghotsava* and *Paushmela*, which are celebrated during winter, Alpana is generally drawn in grey and white.



The Todas Have A Beautiful Embroidery

—Shanti Sudarsanam

WHILE reviving the lost art of embroidery that adds colour and beauty to the home, the embroidery of the Todas, an aboriginal tribe of the Nilgiri Hills in South India, cannot be forgotten.

Little groups of charming Toda women living in small dark huts on tops of cold heights, spend all their leisure in practising this art. Their nimble fingers work all day embroidering the *putkali*—the only cloth they and their men folk wear. The origin of Toda embroidery is not known, but it has been handed down from mother to daughter for generations.

The design of the embroidery is always geometrical and orginally used to be worked with a large needle, only in dark blue or black cotton yarn. The custom has been to embroider borders at either ends of the *putkali* which is used as a warp.

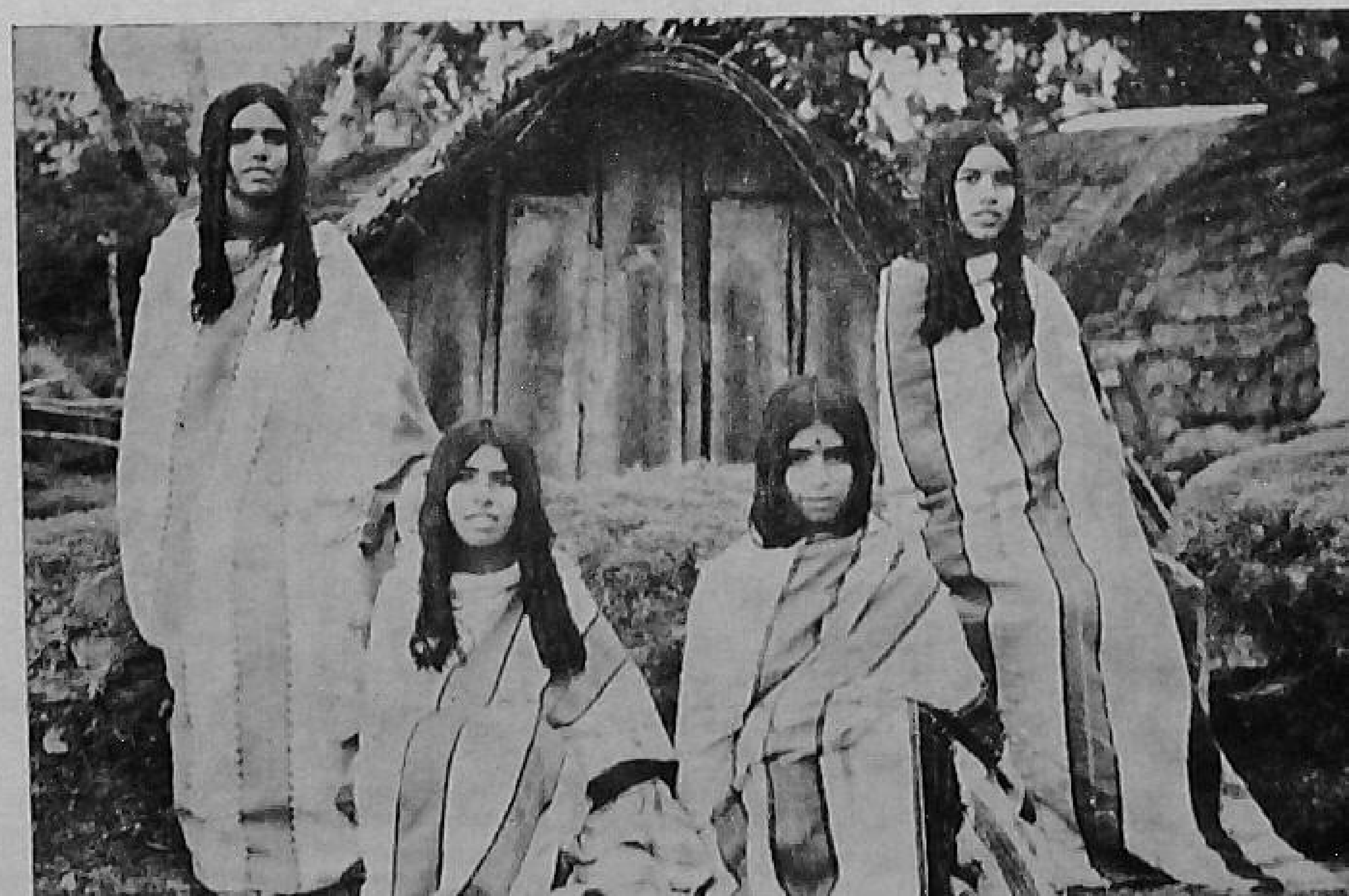
The embroidery is worked on thick handloom cloth specially woven with broad, black and red stripes at both ends. The cloth is unbleached and remains so till it is torn by wear. This cloth is freely available in the Ootacamund bazaar. This embroidery has been tried on khadi also and has been found effective, but it is more difficult to get a uniform design on khadi.

The working is rather slow as it involves counting, and spacing of yarn. The Toda woman has plenty of time to spare and she loves to spend long hours sitting on the soft green grassy slopes, basking in the warm sun, patiently running her needle forwards and backwards, weaving a design.

Each Toda man and woman possesses only one *putkali*. In olden days, each family used to have one *putkali* but now each member has his own. The *putkali* is worked so carefully that the embroidery lasts as long, if not longer than the cloth itself, and stands any number of washes. If pressed, the design takes a fine gloss.

Finding the embroidery attractive for home decoration, the early Christian missionaries provided Toda women with thick material, either linen or casement cloth, and without altering the type of stitches, gave them ideas for embroidering designs for a tray cloth, table cloth, or a dressing

A group of Toda women with putkalis



become a useful cottage industry. The popular design on all household linen in the Nilgiris is the Toda design.

It is, however, reported that many Todas have now left preparing embroidered material for the market, because there is no more economic need to do so. The Government has made available a large number of amenities to the tribal population, and the Todas are satisfied with embroidering *putkalis* for their own use. But the *putkali* is now being replaced by the *dhoti*, the shirt and the turban. Once the *putkali* ceases to be the Toda dress, the embroidery also will be forgotten with it. It would be sad if this beautiful art begins and ends on these remote hill tops.

The Department of Women's Welfare, Madras State, is doing some useful work in this connection by encouraging Toda women to pursue this embroidery in the community centres specially started for them.

It will indeed be a great contribution to the art world if this embroidery is popularized, and the Todas are encouraged to keep up interest in the art.

An old Toda man

table runner. Threads of different colours were used on coloured material for the purpose. These articles found a great demand in the market and soon the Toda women began to earn three to five rupees a week through this craft. It has thus

A Toda woman with the putkali she has embroidered

A Toda couple with embroidered putkalis and umbrella

The Vindhya Area Has Them Too

These Admirable Rural Crafts..

--Radha Deshpande

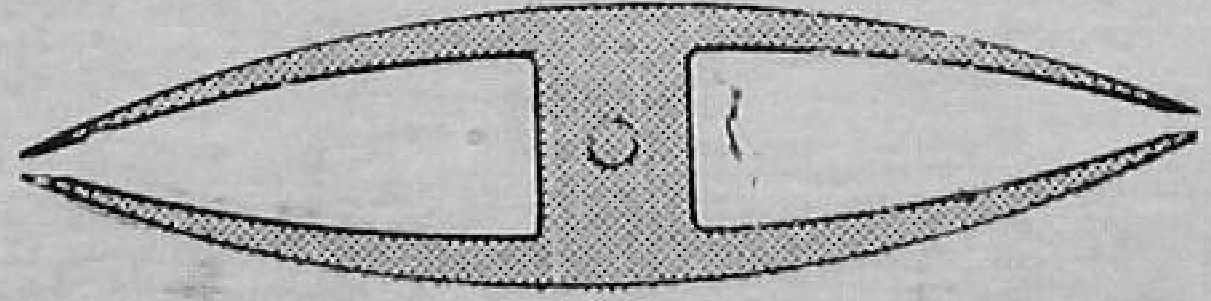
SHUTTLE work, *khajur* work and *urai* work are popular handicrafts among the rural housewives of the Vindhya region of the Madhya Pradesh State.

While cotton thread and a shuttle are required in shuttle work for making laces, table cloths and kerchiefs, in *khajur* work, utility articles like boxes, mats and baskets are made from dry *kans* grass and dry *khajur* leaves. In *urai* work, dry *urai* grass is put to use for preparing mats, fans, *asans*, etc., with the help of ordinary coloured thread.

SHUTTLE WORK

The origin of shuttle work, is not known, but since a special type of shuttle is quite common in some villages of the region, it can be safely assumed that the craft was practised in the area since long. The shuttle used here is usually made of wood and ivory.

It consists of two oblong thin strips with pointed ends on the sides, joined together with a bobbin like arrangement in the centre, on which the thread is wound. The strips are curved. The central axle or bobbin has a hole for tying the thread. The thread is given different knots, or stitches, with the help of the shuttle and rings of the thread are formed, which in turn are joined together, to form laces, kerchiefs, etc., with beautiful designs.



Steps in making the stitch :

The basic stitch in shuttle work is a double stitch.

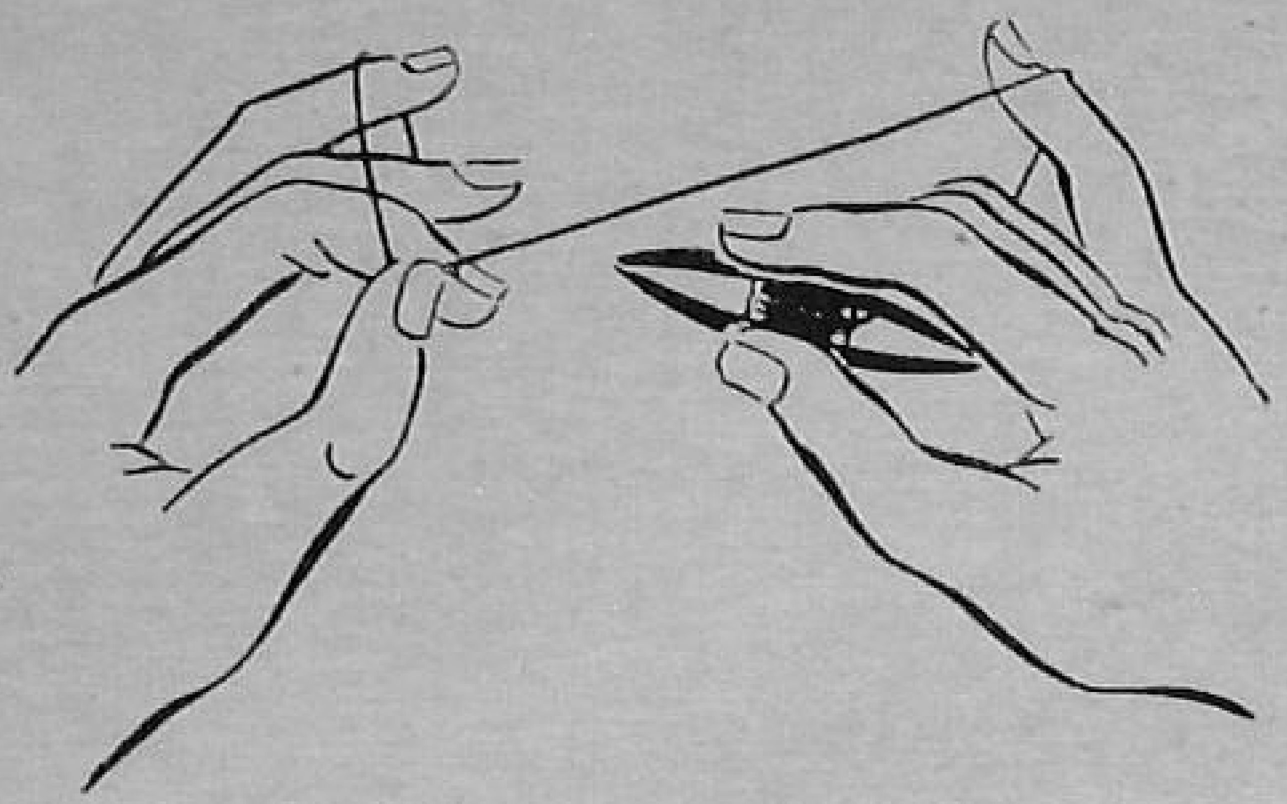
(1) Insert the thread into the hole in the centre of the bobbin and tie a knot. Wind the thread round the bobbin.

(2) Hold the thread in the right hand, and unwind the shuttle so that the thread is about 15 inches long.

(3) Hold the shuttle in the right hand so that one of the pointed ends is facing the

left hand and the thread comes from the back of the bobbin.

(4) Grasp the flat side of the shuttle between the thumb and the forefinger of the right hand in a horizontal position, holding the other three fingers on a level with the forefinger.



(5) Grasp the free end of the thread between the thumb and the forefinger of of the left hand.

(6) Spread out the middle, ring and little fingers of the left hand; pass the thread over them.

(7) Bring the thread round the fingers of the left hand to make a circle and hold it tightly between the thumb and forefinger of the left hand.

(8) Bend the little finger of the left hand backwards to catch the thread against the palm.

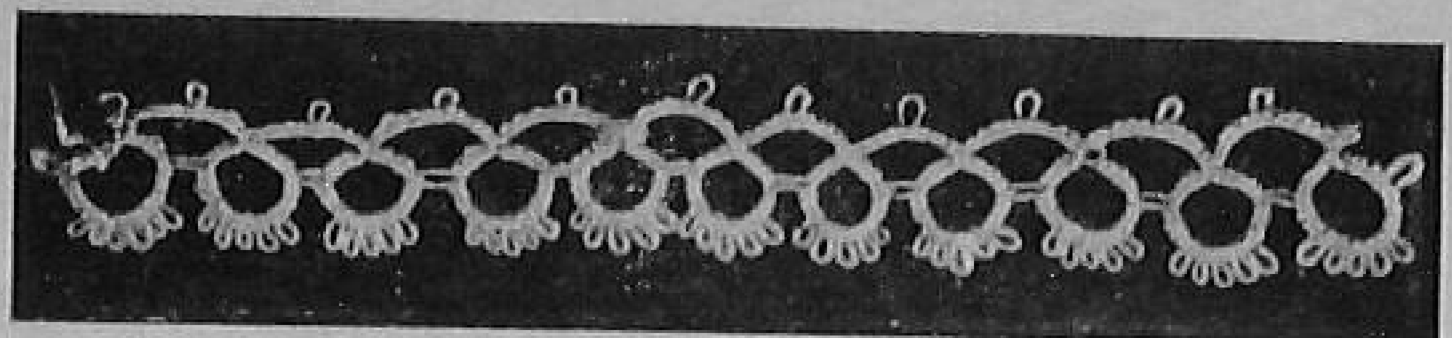
(9) Straighten the middle finger of the left hand backwards to catch the loose part of the thread circle.

(10) Adjust the thread so that the fingers feel easy and are not strained.

(11) Draw the shuttle thread out to its full length keeping the right and left hands at equal lengths.

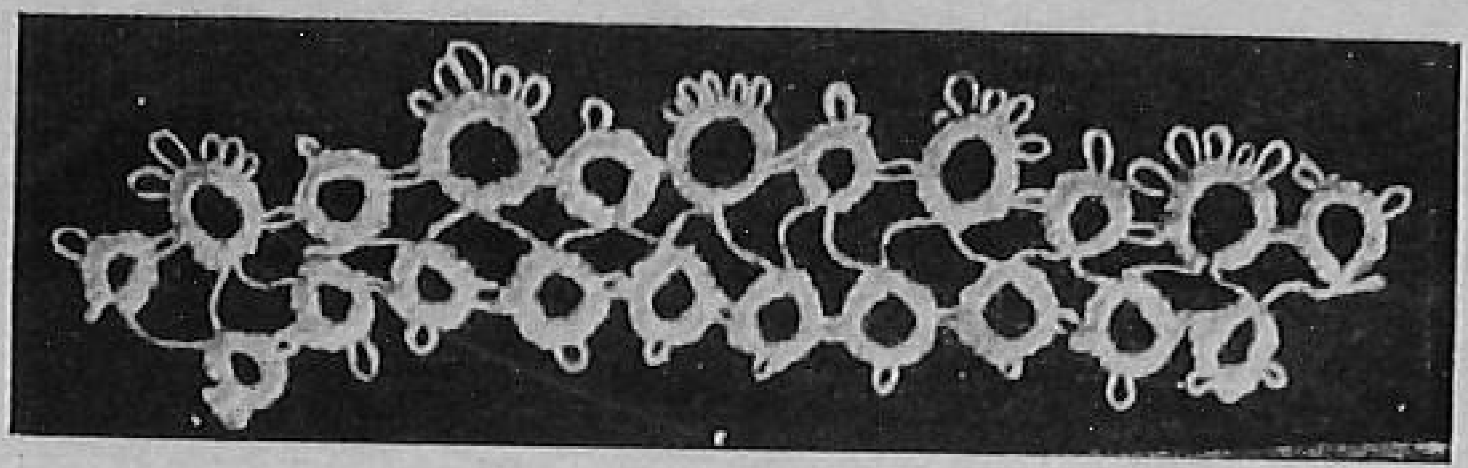
(12) Pass the shuttle thread under the finger of the right hand, then over its little finger.

(13) With the thread in this position, drop the middle finger of the left hand and introduce the shuttle under both threads and bring it back over the thread held between the thumb and the forefinger of the left hand and under the shuttle thread.



Design 1

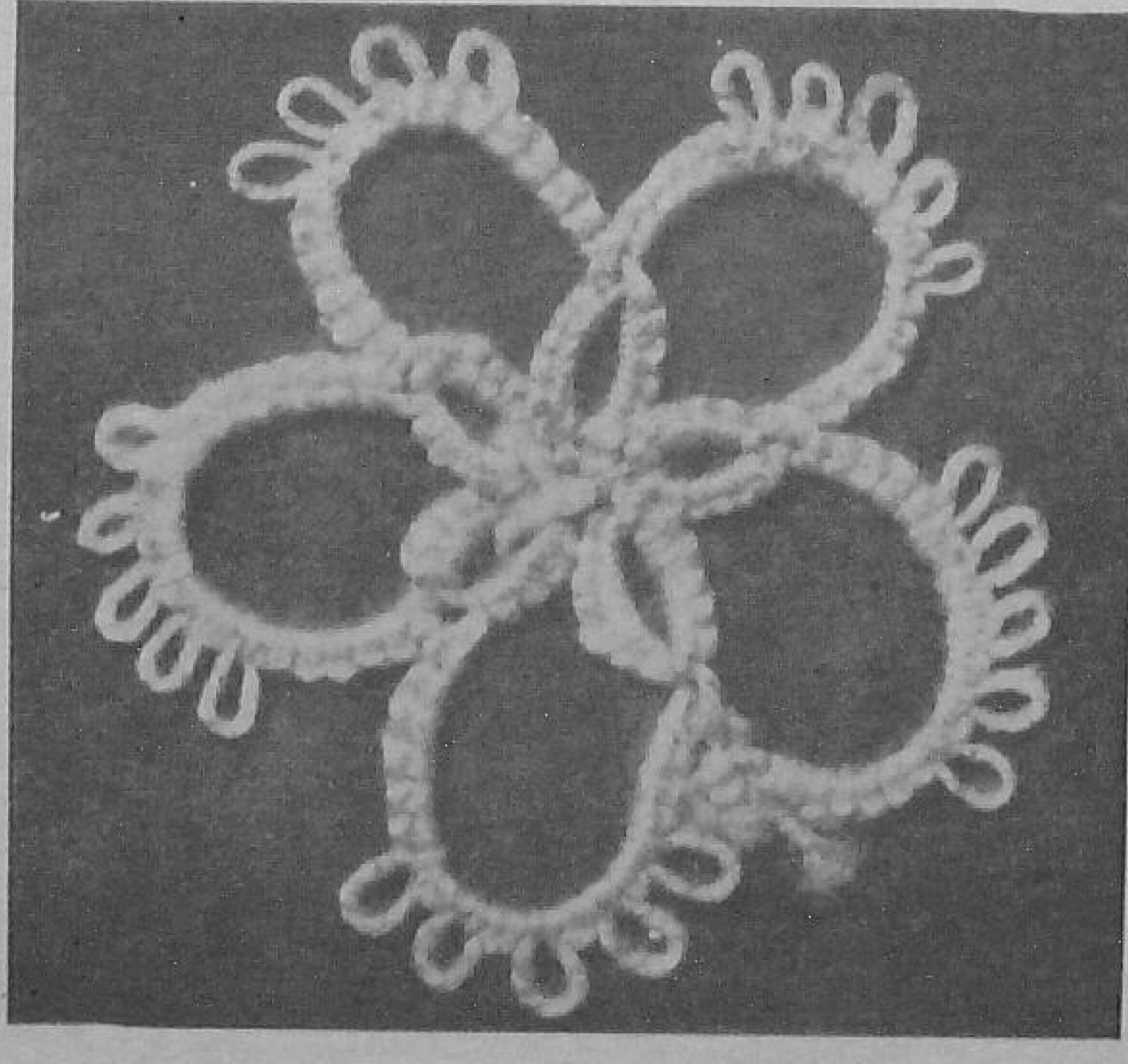
(14) Drop the thread from the little finger of the right hand and draw the shuttle thread tightly, pass the shuttle thread over the little finger as before and hold in this position until the first half of the double stitch is completed.



Design 2

(15) Slowly raise the middle finger of the left hand, thus sliding the loop into position between the thumb and the forefinger. This completes the first half of the double stitch. (It is important to relax the fingers of the left hand when drawing the shuttle thread tight as in step 14. This allows the loop formed in step 13 to turn from the shuttle thread and be made by the thread round the fingers of the left hand. The shuttle thread passes through the loop now made.)

Design 3

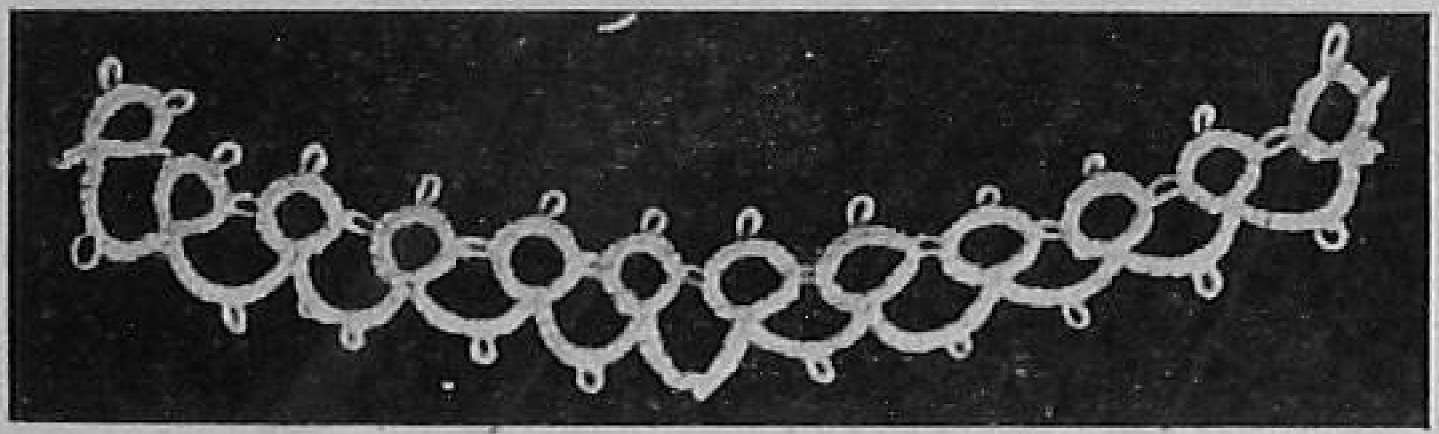


(16) Drop the thread from the little finger of the right hand. Move the shuttle forward again and keeping its pointed end facing you, carry it over and bring it back under the thread held between the thumb and the forefinger of the left hand.

(17) Drop the middle finger of the left hand.

(18) Draw the shuttle thread tightly and hold in this position until the second half of the double stitch is completed.

(19) Slowly raise the middle finger, thus sliding the loop into position between the thumb and the forefinger of the left hand. This completes the second half of the double stitch, the basic stitch in shuttle work.



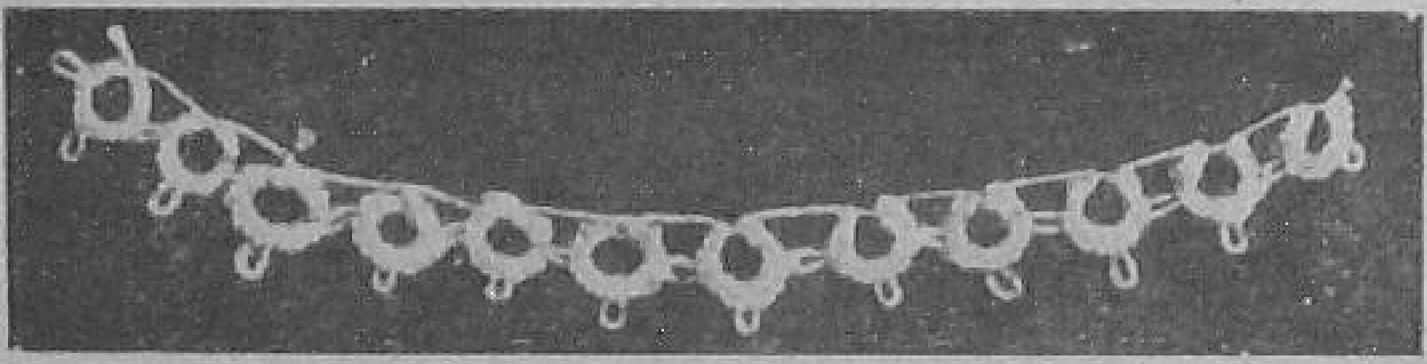
Design 4

All shuttle designs contain rings, and loops called "picots". The rings form the basis of the design, the picots are used for decoration and for joining. Try to make the rings even and the picots uniform in size. The working stitch always comes between the thumb and the forefinger.

Steps in making the rings:

(1) Make four double stitches.

(2) Next, make the first half of a double stitch, but as you slide it into position,



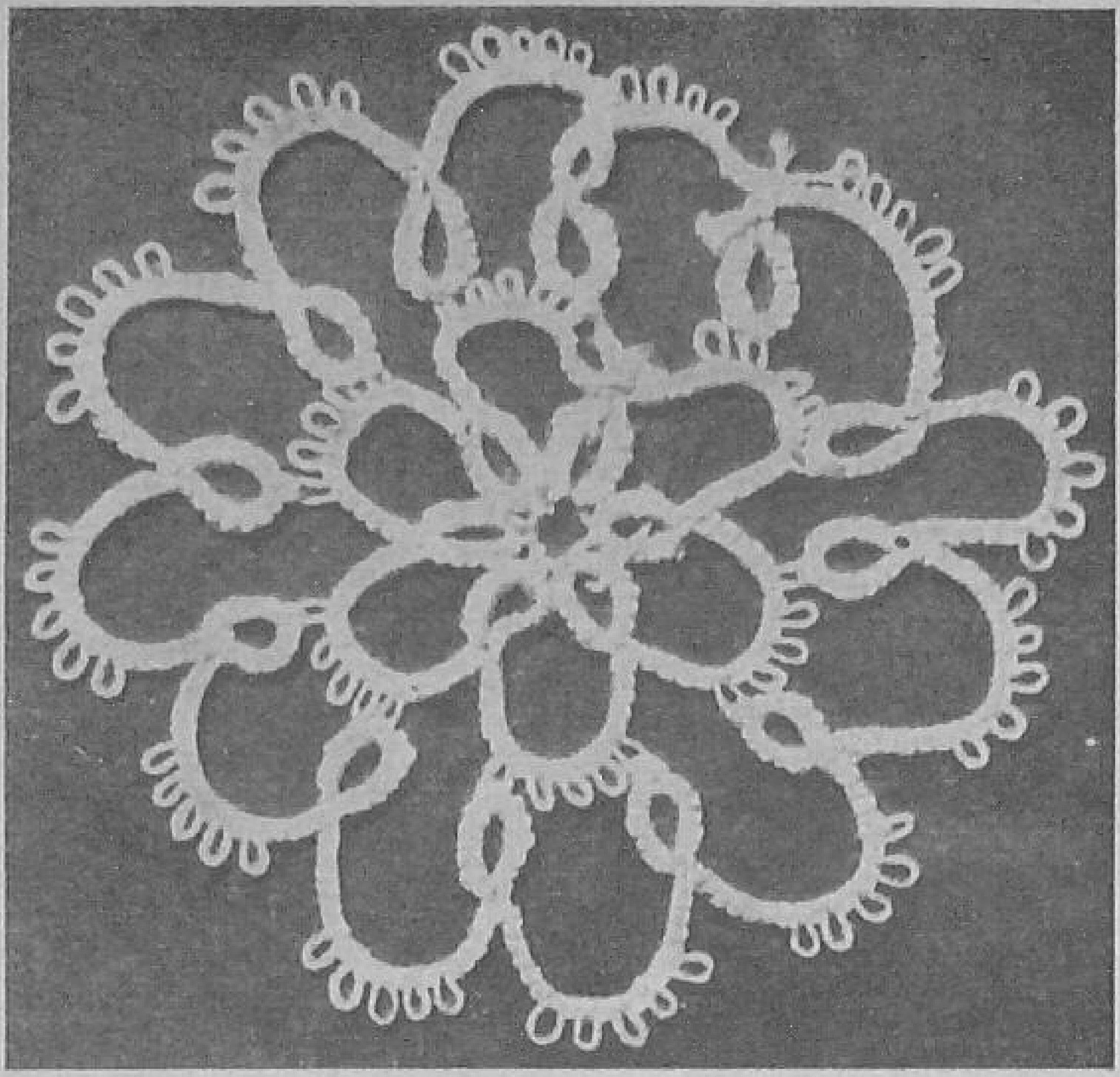
Design 5

stop about a quarter inch from the preceding double stitch.

(3) Complete a double stitch.

(4) Draw the entire stitch close to the first four stitches.

(5) The little loop formed from the space left between the stitches is a picot.



Design 6

(6) Make four more double stitches.

(7) Make a picot and complete the five stiches.

(8) Make another picot and five double stitches.

(9) Make a picot and four double stitches.

(10) Holding the stitches securely between the thumb and the forefinger of the left hand, draw the shuttle thread tight, so that the first and the last stitches meet, forming a ring.

Second ring and joining:

(1) Wind the thread round the left hand position for another ring.

(2) Make four double stitches, a quarter inch away from the ring just made.

(3) Insert the hooked end of a crochet needle or the pointed end of the shuttle through the last picot of the previous ring and catch the thread encircling the left hand.

(4) Pull the thread through until there is a loop large enough to insert the shuttle.

(5) Pull the shuttle through the loop and draw the shuttle thread tight.

(6) Slowly raise the middle finger of the left hand to draw up the loop. (This joins the new ring to the old one and counts as the first half of the next double stitch.)

(7) Complete the double stitch.

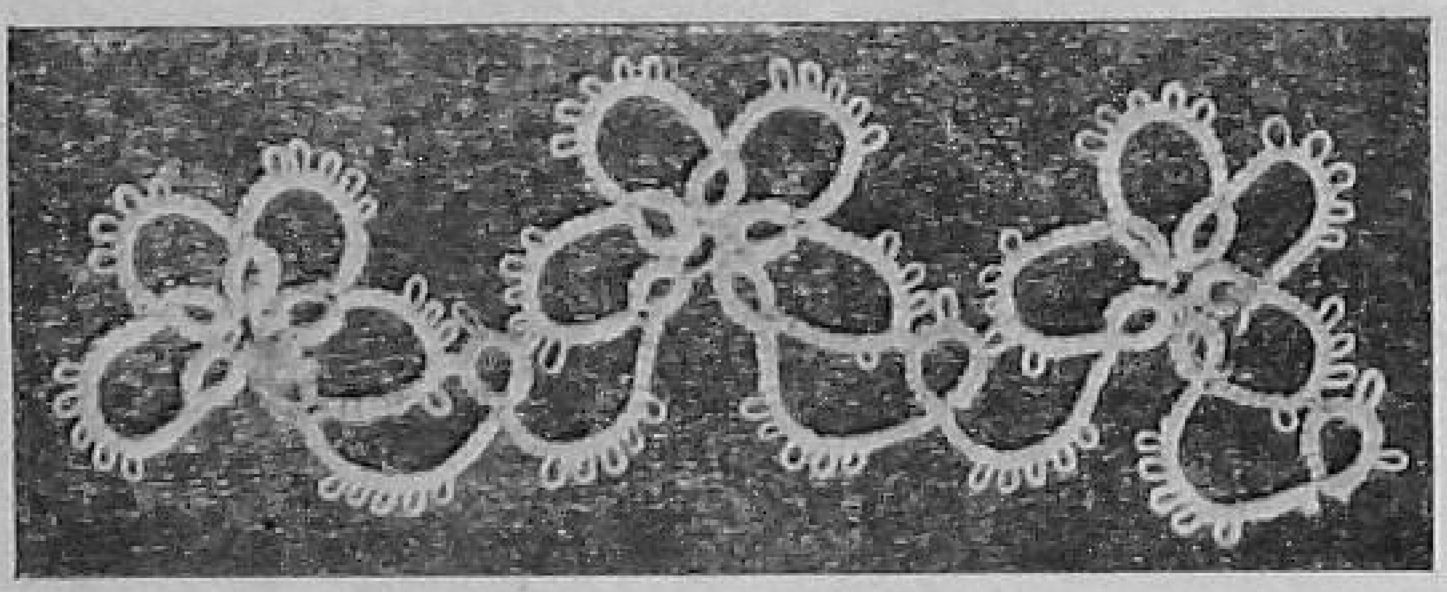
(8) Repeat steps 5 to 9 given under "Steps in Making the Rings." Continue in this manner for each succeeding ring, repeating steps 1 to 8 under the "Second Ring and Joining."

Joining the thread:

When new thread is required, make a flat knot close to the basis of the last ring or chain, but do not cut off the ends.

Designs:

Designs 1, 2, 4 and 5 are made in the same manner except that in designs 1, 2 and 4 the succeeding rings have been stitched from both sides of the first ring. In other words, the first ring is



Design 7

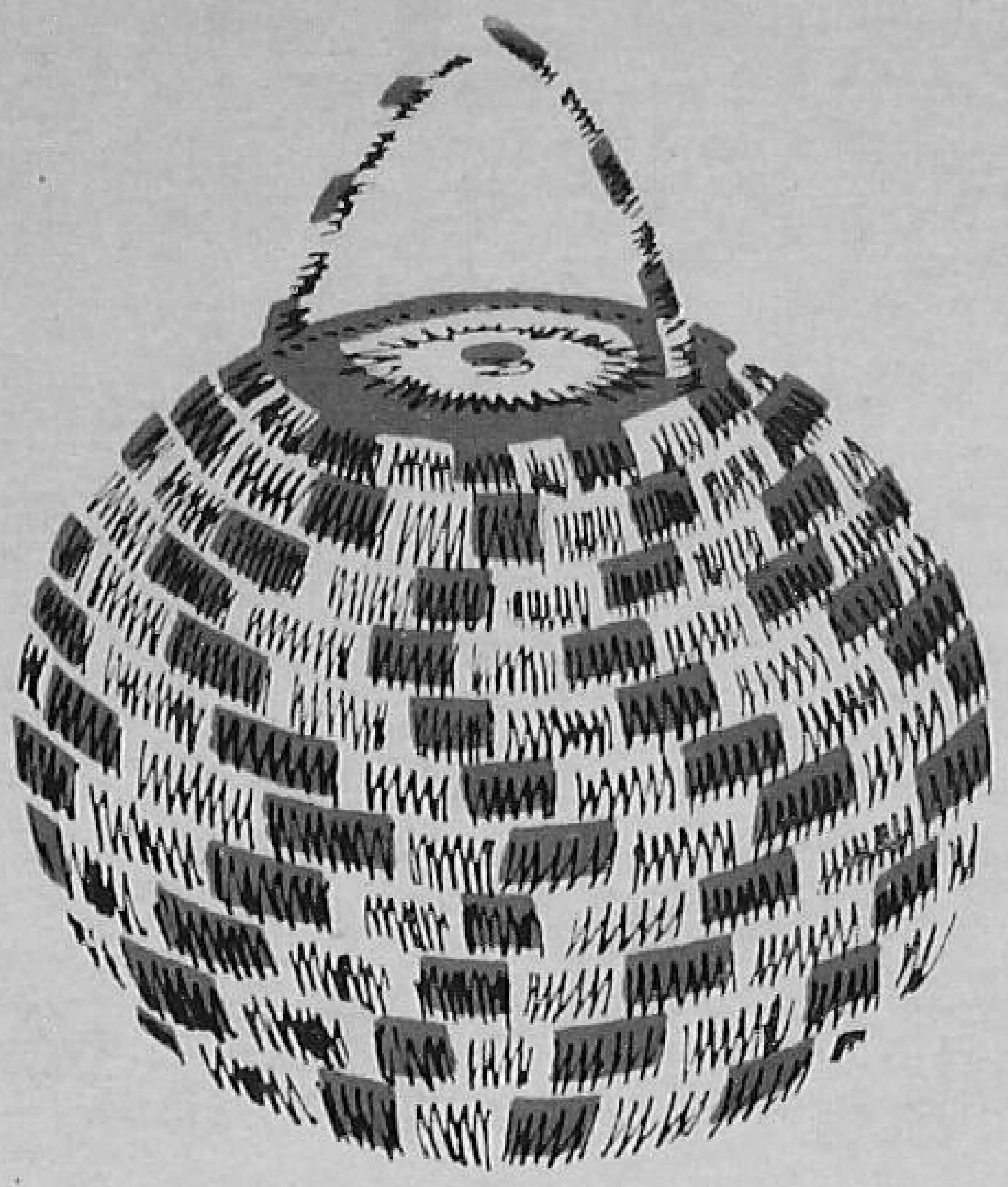
made and turned upside-down, and a second ring made and again the third one is made on the same side as that of the first one. For the more complex designs 3, 6 and 7, two shuttles are used alternatively. With two shuttles one can use threads of two different colours also.

Being dainty in appearance, shuttle laces are used as edges for babies' garments, blouse sleeves, *saries*, table cloths, kerchiefs etc.

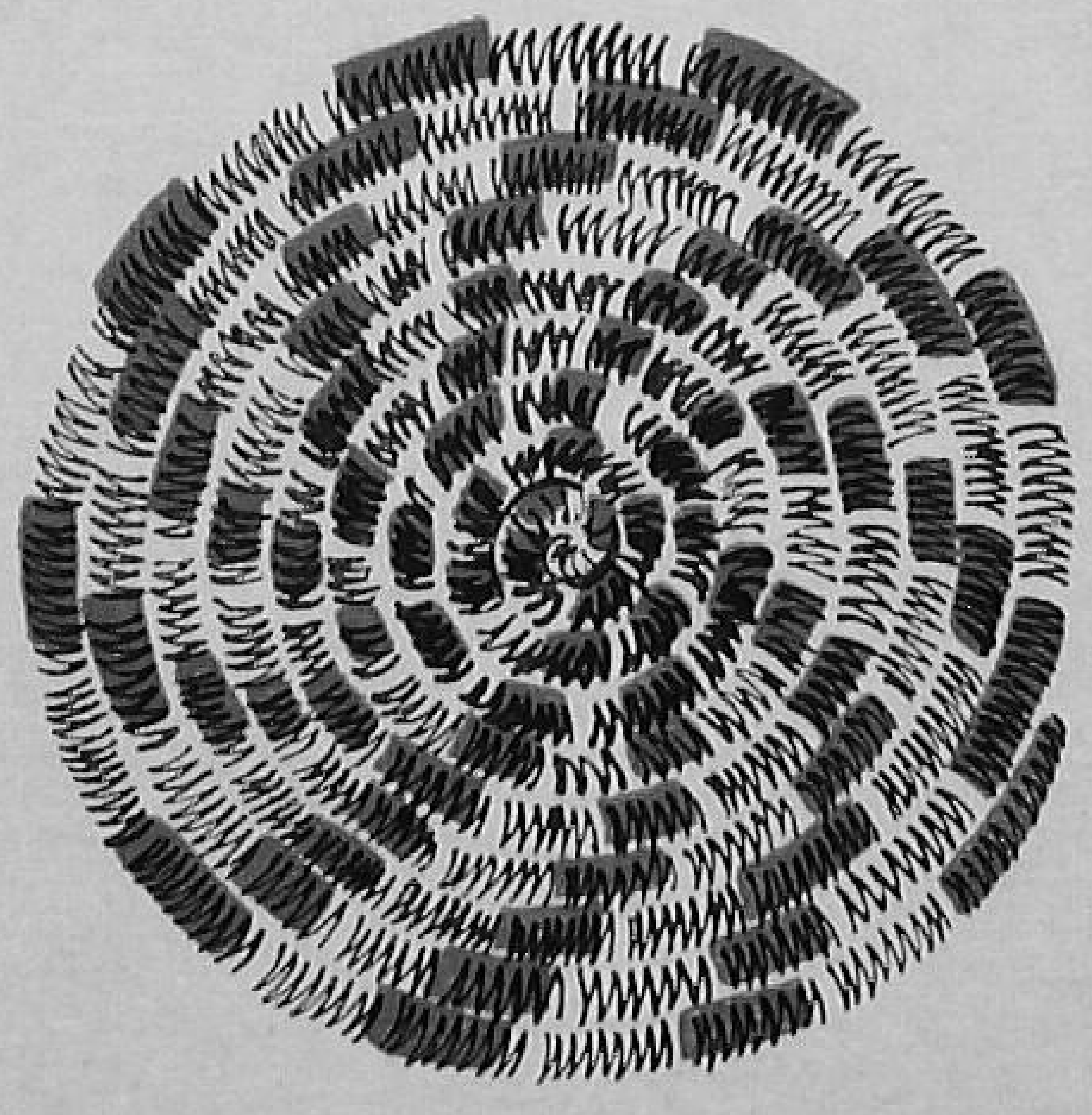
Circular designs are used as decorative motifs and applique on childrens' garments, table cloths, etc.

KHAJUR WORK

Khajur work is practised on cottage industry scale in the area, and many rural housewives earn extra income by making useful articles like baskets, *asans* and boxes from dry *khajur* leaves and dry *kans* grass which cost nothing and are available in plenty.

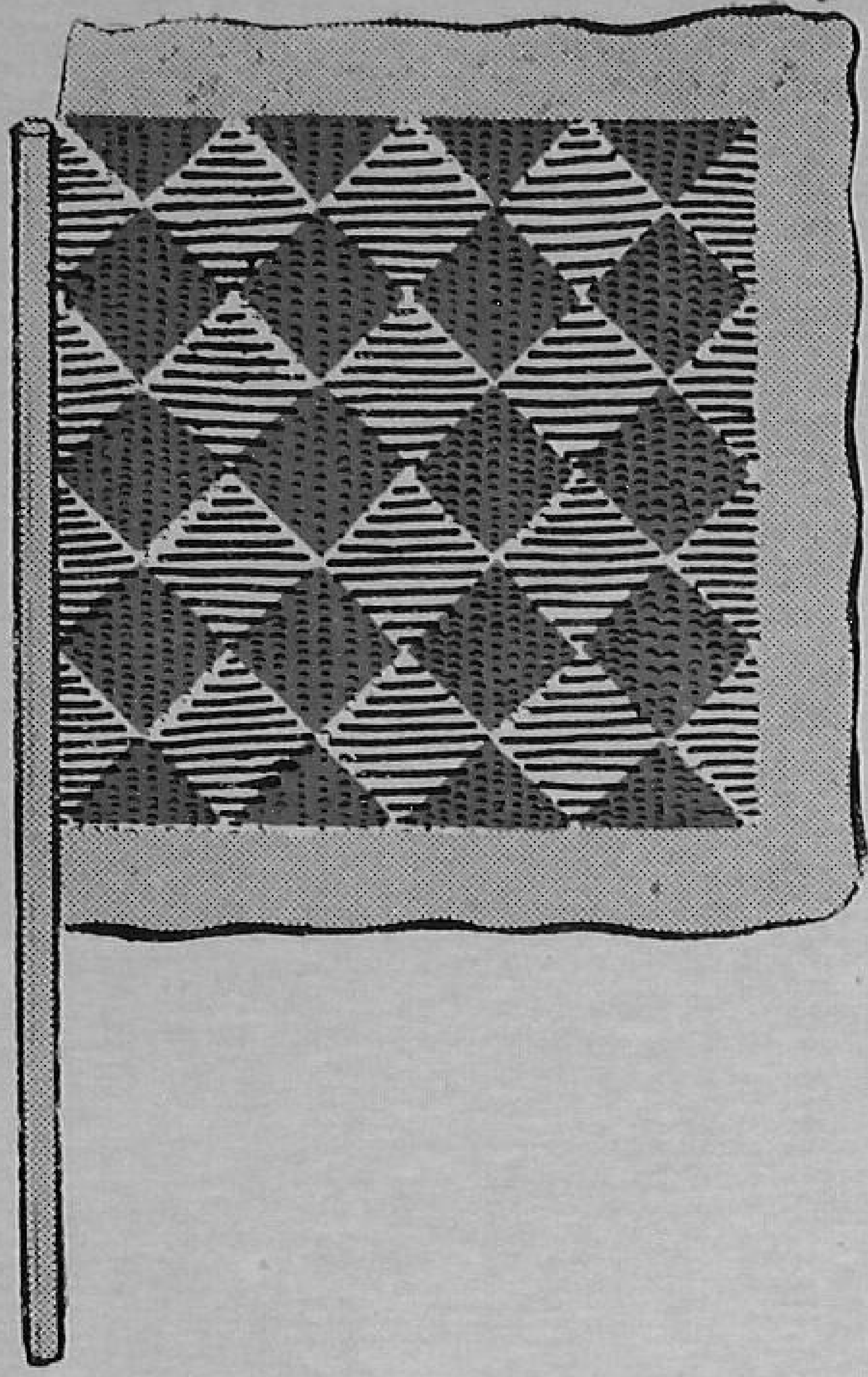


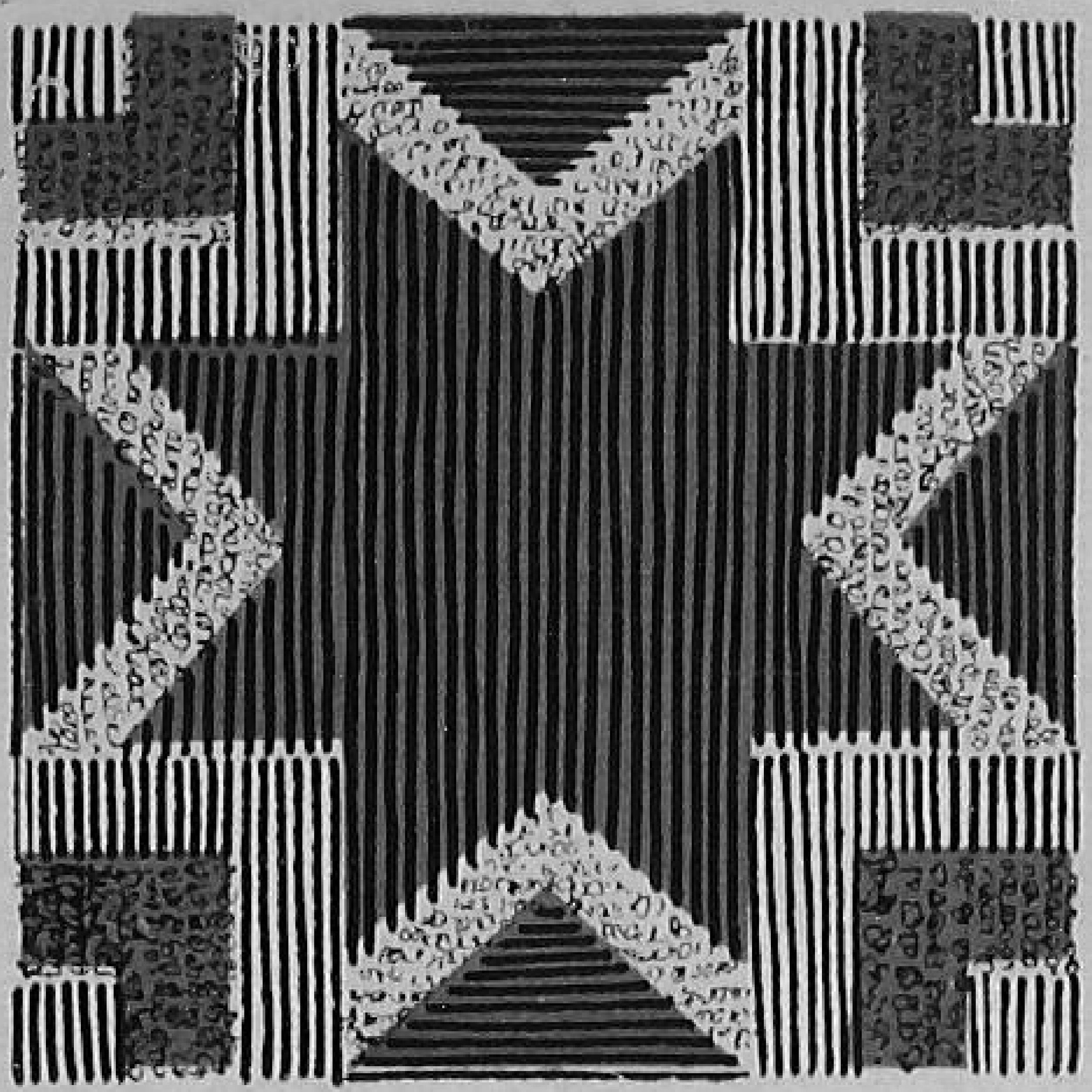
The dried *kans* grass is arranged in sheaves of suitable size and length which are wrapped and stitched together with the help of dry *khajur* leaf strips. The *khajur* leaf strips which have pointed ends serve as needles also. These sheaves are at the same time arranged in a concentric circle to form the circular *asan*, or box, etc. The leaf strips are coloured with locally available dyes and they automatically form striking designs.



URAI WORK

Urai is a thin grass about two feet high, which turns yellow when dry. It grows wild in the area and is commonly





used for making brooms. But, beautiful fans and *asans* can be prepared out of it.

The grass needles are cut uniformly according to the required size. Coloured threads are then taken and ordinary knots are put around an *urai* needle. Another needle is then tied with the first one with the help of the threads by putting ordinary knots on it. Likewise more and more needles are added and a mat is prepared. The design is formed by the colour of the threads and the place of the knots.

To make a fan, this *urai* mat is then tied with a bamboo handle which is wrapped in a coloured piece of cloth. Similarly a frill of old cloth is stitched on to the mat.

(*continued from page* 21)

Demonstration No. 8

DESTROY SCRAPS OF FOOD AND OTHER WASTE

Equipment needed: Tin with a tight fitting top.

Keep the house and the compound clean so that the flies cannot find a dirty place to lay eggs. Put all the scraps of food and other waste in tin cans with tight lids. These can be bought in the market for a few annas. Keep the food scraps covered until they can be fed to the animals, or put them in the compost pit.

(*continued from page* 19)

"No doubt I could do something in the last two years," Kamla said. "If you had visited Rasulpur two years ago, you would have noticed today the change in the attitude of the village women. But much more remains to be done. You must have observed the village streets which are dirty even now with litter everywhere. In spite of all our efforts, no regular sweeping of the streets is undertaken. But you can't do everything in a day. It takes time and hard work. Come to Rasulpur after two years. I am sure you will find a striking change in the village and the village women."

—S.G.R.

COLLEGE GIRLS AND VILLAGE WOMEN BETWEEN THEM SET A VILLAGE STRAIGHT

HOME SCIENCE GOES TO DELHI VILLAGES

—R. S. Mathur

AMONG the visitors that Delhi villagers welcome most are the girl campers of Delhi schools and colleges who join the social service camps organized by the Bharat Sevak Samaj.

Recently I had an opportunity to visit one such camp at Nangloi. It was pretty cold as is usual on an early December morning, when I reached the camping-ground. But the campers were already out on their jobs.

The camp itself presented a picture of discipline combined with enthusiasm when the Lady Camp Supervisor, a seasoned BSS worker, took me round.

Students' committees like a hosts group, a cooking committee, a marketing party, and a sanitation squad were set up to manage the camp work. Each group worked on all the committees by rotation, "so that all get to know every type of work," to quote the Camp Supervisor.

Accompanied by the Supervisor I reached the 'front', the village of Nangloi where the girls were working. A group was sweeping a street while appreciative village women were watching the *mem-sahebs* at work. "This street was not in a level before. The girls dug it, even a foot deep at some places, and levelled it up," the Supervisor told me.

A group of girls were bathing some children in the warm well water. There was a cake of bath soap, some oil and a talcum powder tin. The mothers watched the girls as they carried on the work. "The children now like a morning bath. Formerly, even the mothers protested !" remarked the Supervisor.

Student campers bathing a village girl

On entering a house we found two girls talking to four women in the court-yard. We stood and listned. "*Behen*, you should know that clean habits are very important, both for you and your family. You should keep your house clean, sweep the rooms, clean the doors and walls. Plaster *katcha* floors with cowdung at least once a fortnight. As for cooking, start work only when your hands are clean, wash the vegetables also."

"That is interesting," I remarked to the Supervisor. "Wait and see, the next topic is balanced diet. The girls will tell village women how to choose the menu for breakfast, lunch and dinner. Our village women are very poor at that," she added.

In another house we found two girls washing some clothes in hot water with a cake of soap, while a group of village women watched attentively. In the next house, we saw a lady's hair being deloused, cleaned and combed.

A few houses ahead we found some half a dozen young girls digging a drain in a village street. They were piling earth on the sides. Carrying *taslas* on their heads, the young girls walked swiftly to and fro, while others handled the pickaxes deftly. The laughter on their faces and the appreciative smile of the villagers, were proofs of the usefulness of the work. "Menfolk also join the girls in such arduous work, whenever they are free," I was told.

I found some villagers paving a street with bricks. "The girls showed the way," the Supervisor remarked, "and now they have taken it up. The Block Development Officer has promised to follow up the work and get all the village streets paved by the villagers themselves. They also have assured to contribute money for bricks." A remarkable achievement indeed!

At the evening camp fire , the villagers exchanged views, sought advice and discussed all sorts of matters with the girls and BSS workers. They discussed the village development plans with the BDO. There also was a programme of recreation. The atmosphere was one of great informality.

My talks with the villagers and the girls left me in no doubt about the great impact of the camp on the village women. The young college girls were helping the village women to become not only better housewives and mothers but also more confident citizens. They in their turn showed regard for the young girls by inviting them for lunch and snacks and discussing even domestic matters with them.

I think, the day is not far off, when the village women will start competing with the urban housewives in better house-keeping, and who knows perhaps in fashions also, thanks to the Extension programme of the Development Blocks and the Social Service Camps of college and school girls.

Cleaning the village street

Caribbean Countries Try Home Science Extension

"WHAT is a child ?"

"It is a pair of hands to work for you and someone to close your eyes when you die."

This is what a group of women answered a welfare adviser in the Caribbean, an area comprising 30 countries and some 7,000,000 people, many of whom are undernourished, ill-housed and living in unsatisfactory conditions. They form a heterogeneous community of African, East Indian, Indonesian, Chinese and European descent. But their living conditions are gradually being changed through social and economic action, which includes the work being done in home economics.

The Governments and authorities of the 30 countries have long been aware of the need to improve housing conditions and to raise the standards of nutrition, and they have introduced home economics to tackle these problems. Home economics is promoting the welfare of families and encouraging family life by teaching people how to choose and cook the most nutritious foods and how to improve and make the best use of their homes among many other things.

Instruction in home economics was started in many of the Caribbean islands 30 years ago, but only since the second World War, progress in this field has been rapid. This has come about through the initiative of the Government and the local authorities. The Food and Agriculture Organization (FAO) and other specialized agencies of the United Nations have helped them in this respect.

The root of the problem in the Caribbean, as FAO experts see it, is the lack of stabilized family life as a majority of children in the area are born out of wedlock. This leads to poverty, overcrowding and the instability of society, as many fathers are disinclined to accept their responsibilities.

Many children born in these circumstances suffer from malnutrition. Protein deficiency and lack of vitamins A, B and C in the diet affect their physical and mental health. Even where nourishing food is available, some of it is wasted through bad cooking methods. For instance, the practice of using a large amount of water for boiling rice and vegetables contributes to the low nutritive values of family diets. Sometimes food is wasted because of superstition. The West Indian cherry, which is rich in vitamin C, is, in some places, thought to cause appendicitis. Such problems as these can only be solved by continuous instruction and practical demonstration.

Overcrowding in the inadequate houses leads to the spread of tuberculosis and other diseases, and lack of hygienic handling of food and lack of proper sanitation encourages flies and parasites and the spread of infections. FAO and other experts working in the area have occasionally found that in some places only one

man in ten knows how to use a saw, a brace and bit and a paint-brush, and that very few of the poor women know how to sew and make clothes for themselves or their children .

As many families live in very small houses, usually without a kitchen and with limited facilities for washing and sometimes even without a latrine, there is no point in setting up expensive model homes, beyond the financial resources of the people.

An FAO expert took a typical small house and showed what could be done to improve living conditions. For example, in many houses there are not enough beds for the family and some members have to sleep on the floor. A nest of beds, that is, three simple beds that can slide under each other during the day was constructed, and a movable screen was made for the one-room house to provide some privacy.

Tables large enough to accommodate the whole family are not usually found in these overcrowded homes. The expert showed how to make a folding table, which takes up little room when not in use, and bench seats for sitting around the table or for sitting together in leisure time. The furniture was made out of locally available wood, old packing cases and other inexpensive materials. Cupboards and other receptacles were also made to stress the importance of care and protection, of belongings.

Wherever possible, the FAO home economist set up a demonstration house. In Grenada when 2,000 houses were destroyed by a hurricane, the United Kingdom Government provided money to build new houses. These were small, measuring nine feet by 14 feet, without kitchens and toilets, but, despite these drawbacks, the home economist demonstrated how the available floorspace could be used to the best advantage. With the help of her 27 students, she furnished and equipped one of the houses with five sliding beds, a folding table, seats, clothes and storage cupboards and so on. This demonstration house was visited by hundreds of families who were eager to adapt and incorporate the ideas in their own homes. This demonstration was a big success and the home economist was asked to take the demonstration to various villages in Grenada. At each place a house was borrowed for displaying the furniture, and, when darkness fell, a play was performed by the students to show what an interested family could do with such a house.

By such practical demonstrations and by training people to use carpenters' tools to make furniture and fittings, she was able to carry home economics work to the people in the towns and villages.

There is very little point in giving a cookery demonstration which calls for the use of gas or electric stoves when there are few, if any, such stoves in the community. Cooking is often done over open fires in the yard, and through demonstrating the construction of a simple smokeless fireplace made of clay, an improvement was achieved in some places.

The cultivation of kitchen gardens has been encouraging. Many families were taught to concentrate on growing vegetables and fruits that can make up some of the deficiencies in the diet. Pumpkins and yellow sweet potatoes, for example, are a source of carotene, while a type of green beans and spinach provide carotene and iron. The small list of selected vegetables and fruits varied from country to country to meet local conditions. In view of the great need for protein, families were also encouraged to keep poultry and rabbits and were taught how to feed and care for them.

All the work and training in home economics carried out in the past ten years amounts to no more than a start in tackling the home economics problems in the Caribbean, and while much yet remains to be done, a sound basis has now been laid for developing long-term continuing programmes, the full benefits of which will be reaped by the future generation.

Our Experiences In Japan And The Philippines

—V. Bhandari

SINCE the end of World War II much effort has been made by the Government of Japan to improve the life of its rural population. Prior to 1948, Extension work in Japan was carried on by private organizations like Farmers' Associations, and was solely concerned with increasing agricultural production. Today the agricultural Extension work covers all advisory work concerning agricultural production as well as farm and home improvement and rural youth training. It is primarily educational in character.

In the Philippines, the Extension Service operates under the Republic Act 680. The agricultural Extension work was formerly undertaken by separate bureaux and offices of the Department of agriculture and Natural Resources and other government agencies. This has now been consolidated into a single service to farmers. The functions of this service are to disseminate useful and practical information on agriculture, soil, forest conservation, livestock, fisheries and home economics. Its activities are directed towards effecting improvements in rural areas through education and demonstration.

IN JAPAN

In Japan, the personnel of the Home Improvement Extension Service consist of Home Advisers and Subject-matter and Extension method specialists. At the national level in the Ministry of Agriculture and Forestry there is an Extension Division to which the Home Improvement Section belongs. At the prefectural level (like our State) there is an Agricultural Improvement Section located in the Agriculture and Forestry Division. The prefectural governments have their own prefectural Agricultural Experiment Stations consisting of Extension Adviser Training Institutes and Home Economics Experimental Houses.

The prefecture is further divided into a number of Extension areas. To each area are assigned a group of Farm and Home Advisers, who operate from the Area Extension Office and work with about 500 farm households. There is one Home Adviser and about five Farm Advisers for each area.

Home Adviser. The Home Adviser through whom Extension work is carried is usually a home economist. She is like our Gram Sevika, and is stationed along with the Farm Adviser at the local Area Extension Office designated by the local government. She keeps in close touch with the farm people, serving them as a counsellor, giving them information, guidance and technical advice concerning all aspects of their home life.

The Home Adviser is provided with a bicycle for making home visits, which considerably saves her time and energy. There is a move to provide her with a motor scooter in the near future.

Candidates for the post of Home Adviser must be either college graduates (two-year or four-year) who have taken regular courses in home economics, or those who after their high school examination have

A Home Improvement Laboratory in Japan

been engaged in home economics programmes in national or local institutions. The percentage of the high school category of Home Advisers is much greater than that of the four-year college graduates. Because of the background of the candidates their training is a problem for the Government, and they have to be given a broad education in social sciences and special training in the techniques of working with rural families and community groups.

Subject-matter and Extension method specialists. There are two types of specialists: Subject-matter specialists and Extension method specialists. The specialist, like the Home Adviser, is a prefectural public service employee, subsidized by national fund.

There are normally four Subject-matter specialists—on food, clothing, housing, and home management. They are stationed at the Home Economics Experimental House in an Agricultural Experiment Station. We were able to see two such centres, one at Aichi and the other at Fukuoko. For disseminating all new technical information to farm families, there is a very good system which the Home Adviser finds very useful. Demonstration cards containing the information in a simple language are sent regularly to the Home Adviser who finds it easy to explain them to the farm wives.

Specialists in-charge of Extension methods are generally stationed at the Improvement Section of the prefectural government office. Their duty is to help the Home Advisers to improve their Extension techniques and thus make their work more efficient and useful.

The plan is to have four Subject-matter specialists and one Extension method specialist in each prefecture. At present, a number of prefectures have one Extension specialist and only one or two subject-matter specialists.

Home Advisers' Inservice Training

Inservice training courses for the Home Advisers are held under the leadership of the Subject-matter and Extension method specialists at the prefectural level. There are three types of training.

(a) *General training.* This is to give such general training to the Home Advisers as is suitable for them depending on their experience of work in the field. These courses are held two or three times a year in a central place to which all Home Advisers can conveniently come.

(b) *Group training.* This is planned once a month for groups of five to eight Home Advisers working in the districts within a day's journey from each other. This training is practical and provides an opportunity to the trainees to concentrate on their own special problems and also provides an opportunity to the Specialists to observe the Home Advisers and assess their ability and the kind of help they require.

(c) *Individual training.* Since each Home Adviser has her own particular problems arising out of her working in a particular community, the specialists give her day-to-day guidance in solving these problems.

For the purpose of further training the Home Advisers in service, the community is divided into eight regions. Regional training courses are conducted by the officers of the Ministry of Agriculture and Forestry, who are in charge of the

Home Improvement Extension Service. Two experienced Home Advisers are sent by each prefecture to these courses. Major problems pertaining to the development of the Extension service in the region are discussed.

Home Improvement Laboratory

We saw the Home Improvement Demonstration Laboratory at Fukuoka prefecture. The laboratory demonstrates research work carried on in home improvement, food, and clothing for farm families. The laboratory has four rooms—one each for clothing, food, home improvement and office. The progress made in research in these aspects of farm home life is of far reaching importance. The work of the laboratory consists of:

(*a*) Demonstration of installing equipment necessary for home improvement, and practical training of the home improvement group,

(*b*) conducting training of the Home Advisers, and

(*c*) conducting simple experiments on the techniques of home improvement.

The home improvement section of the laboratory conducts experiments in simple home handicrafts like the making of a chair, a table or a condiments shelf for the farm house. An interesting item was a wardrobe remodelled from an old oblong chest. We saw a model kitchen and various kitchen ranges, bread processing equipment and water heating equipment utilizing the heat of the sun, and processed foods of various kinds. We also saw such useful items as carpenter's tools for home use and a family stock of medicines and nursing materials.

The work of the food section consists of experimenting in the making of various foods for the farm homes. Experiments are also conducted in the preparation of subsidiary foods and refreshments suitable for a farm house and food for storage purposes and the equipment for it. We saw demonstrations of the bread processing method for a farm house, how to cook soya-beans in different ways and the comparison of different methods of storage of rice cake. We also watched a demonstration of the use of various containers for storage purposes, and various cooking utensils.

The clothing section experiments on the making of efficient work dress, underwear and home dress for farm homes. Experiments are conducted in simple laundry and waterproof processing methods, proper washing and care of bed clothes, and wearing apparel.

IN THE PHILIPPINES

The home economics Extension phase of the agricultural Extension programme in the Philippines has considerably lightened the burdens of the rural home-makers and made home-making a pleasant occupation and not a drudgery for the farm wives. This is being accomplished through the activities of the educational units on improved diets, home management, clothing, and increased income and women's participation in the community improvement activities.

As the ultimate purpose of the home economics Extension and agricultural Extension programmes is improvement in the conditions of the rural families, their contributions are best as a joint programme. Thus, in the implementation of the overall

Japanese farm wives preserving fish under the supervision of Home Advisers

Extension work in the Philippines, no measures of improvements in the farm, the family, or the home are completely within the husband's sphere of work or that of the farm wife's.

Improved Diets. Great emphasis is placed on making every home self-sufficient in food by encouraging such projects as vegetable and fruit gardens, poultry and piggery, backyard fishponds, and home dairy production units.

Demonstrations are conducted by Home Demonstrators to show the best ways of handling food before, during and after cooking so as to reduce wastage to the minimum. Through food preservation lessons, home makers learn to can or preserve seasonal foods, prevent waste and earn and save money.

Home Management. In the home management phase, projects like safe water supply, construction of a sanitary privy, drainage system, and control of household pests are emphasized.

Every means of persuasion both oral and written is used to promote the construction of sanitary privies. Where the families are poor and the building materials are not within their means, members of rural improvement clubs find ways and means of pushing through the project. "Benefit programmes" are usually held. Hand in hand with the construction of sanitary privies, instruction is given in how to make water safe for drinking by boiling and keeping it in a covered container with a faucet, and cleanliness of the home. The housewife is also shown how to exterminate household pests and keep her house spick and span.

Training in home management helps the rural women to make a better use of the available resources and energy. Time and energy saving methods of housekeeping such as working heights, easier laundering methods, a proper arrangement of kitchen equipments to save steps, sufficient storage space and cosy arrangement of all rooms in the house are some of the subjects taught to the rural women.

Clothing. The goal of the clothing programme is to have the rural people suitably dressed at a cost which is within their means. The women are taught to select the right material, colour, style and design that will meet individual and family needs and how to cut and sew their family dresses.

Increasing Income. The most common stumbling block in the programme of better homes and better living in rural areas is low income. Here, home economics extension meets the challenge by still other means such as some specialized productive activity which adds to the income of the family. Notable examples are projects like the *nata de pina* and canned meats of Laguna; the *champoy*, jellies and jams of Manila; the bags and baskets of Pangasinan; the textile products of Ilocos, Mt. Province and Visayas; brooms, hats, mats, slippers, bags and bamboo articles of the Central Luzon provinces; wooden shoes, *abaca* slippers, bags and carpets of the Bicol regions, and the woven materials, mats, slippers and candies of the Visayas and Mindanao.

Women's Participation in Rural Development Work. Worthy of mention under this subject is the Rural Improvement Club (RIC), an organization of women especially home-makers, like our *Mahila Mandals.* The purpose of the RIC is to achieve better homes, along with improved family and community living.

These clubs recognize or determine opportunities, needs and problems of better home-making and improvement in community living, and work out their solutions. The Home Extension Agent and all other agricultural workers attend the meetings of these clubs and help them find out solutions to the problems.

Members attend demonstrations and training conferences on the fundamentals of food, nutrition, home improvement and sanitation, cottage industries and clothing, and discuss their individual problems and responsibilities of home and family life.

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